CORRESPONDENCE.

BETWEEN THE

COLLECTOR OF MADURA AND THE BOARD OF REVENUE

RELATING TO THE

FORESTS OF THE MADURA DISTRICT.

MADURA:

PRINTED AT THE COLLECTORATE PRESS.

BY P. M. PEREYANAYAGUM PILLAY,

1868.

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No. 202.

Madura 26th October 1855.

To.

The Secretary to the Board of Revenue.

SIR,

1. The Markets of Madura and Trichinopoly are almost entirely dependent for timber on the forests in the Cumbum or Dindigul valley, and I feel considerable apprehension, that, unless measures are taken, not only to prevent indiscriminate felling, but also to plant, the supply will fail. At present the only conservative measure, which it has been possible to take, is to order that a permission certificate shall be obtained before cutting is allowed. This is illusory for the purpose of preservation and objectionable as throwing a monopoly in the hands of a few individuals, who having obtained possession of the document exceed its limits without fear of detection.

2. The steps which I would recommend are first the appointment of a competent officer to explore the Forests and report upon their contents and afterwards the employment of a conservative establishment for those portions of them which seem worth the expense.

3. That there is fine teak and other timber of value on the Hills towards the bottom of the valley is quite certain. Mr. Clark also in his * report on the Pulney Hills stated, that they contained fine timber; but it is doubtful whether he included under that name only the spur to which it more properly belongs, on the whole range as he never answered the letter which I wrote to him on the subject. There seems to be abondance also in Warasanaad belonging to Guntamanaicknoor, but these, which are very feverish, have been rarely entered and being in a Zemindary are not the property of Government.

* 10 May 1853 being Enclo. in letter to Bd. 23 March 1854.

4. If the Board think proper, I shall be much obliged by a copy of the Rules relative to the Conservator of the Canara and Annamallay Forests.

R. D. PARKER,
Collector.

No, 302.

Extract from the Proceedings of the Board of Revenue dated 28th January 1856.

Read the following:—

REVENUE DEPARTMENT.

No. 43.

Extract from the Minutes of Consultation under date the 14th January 1856.

Read the following Extract from the Proceedings of the Board of Revenue.

(Here enter 13th December 1855, No. 3285.)

1. The above Extract and correspondence accompanying, relate to the Forests in Madura, Salem, and North Arcot. They bring to notice the rapid destruction that is taken place in the Jungles of the two former Districts, and the means which should be adopted for preventing further waste and for securing future supplies. As a preliminary step towards the object in view, the Board suggest the appointment of a conservancy establishment in each District, to carry out such measures as the Collector may find best adapted to its circumstance; and they express their opinion that in the Districts under notice, the expense of scuh Establishments will be fully reimbursed from the value of the timber now appropriated by private parties.

2. The Right Honorable the Governor in Council entertains no doubt as to the necessity of an Establishment for the conservancy of the Forests. He fully recognizes the loss already occasioned by the neglect to preserve them, and the importance of repairing that neglect for the future. With this view, he has made an application to the Honorable Court for a general Forest Department. Being unwilling, however, to defer all remedial measures till that Department shall have been formed, he resolves to request that the Board will for the present state what Establishment they think necessary in each of the above named three Districts, in view to sacntion being accorded for the same, pending the introduction of the general measures in contemplation.

(A true Extract.)

(Signed) J, D. BOURDILLON,
Secretary to Government.

To be communicated, with the Board's Proceedings, to the Collectors of Madura, Salem, and North Arcot respectively, who will submit Tabular Statements for the Establishments that may be necessary for the conservancy of the Forests of their respective Districts.

(True Extract and Copy)

G. S. FORBES,
Acting Secretary.

To

R. D. PARKER Esq.
Collector of Madura.

REVENUE DEPARTMENT.
No. 3285.

Extract from the Proceedings of the Board of Revenue dated 13th December 1855.

Read letter from the Collector of Madura dated the 26th October 1855.
(Here enter No. 202.)

Read letter from the Collector of Salem dated 4th October 1855.

(Here enter No 115)

In the former of these two letters the Collector of Madura points out that the Markets of Madura and Trichinopoly are almost entirely dependent for timber on the Forests in the Cumbum and Dindigul valley, and expresses his apprehension that unless measures are taken not only to prevent indiscriminate felling, but also to plant, the supply will fail. Mr. Parker proceeds to explain that the only conservative measure which it has been possible to take is to order that a permission certificate shall be obtained before cutting is allowed; and states that this is both ineffectual and objectionable. Mr. Parker then states that the steps which he would recommend are "first the appointment of a competent Officer to explore the Forests and report upon their contents and afterwards the employment of a conservancy Establishment for those portions of them which seem worth the expense."

2. Mr. Parker adds that should the Board think proper, he would be much obliged by a copy of the rules relative to the conservation of the Canara and Annamaley Forests.

3. The second letter, from the Collector of Salem, is in reply to a call from the Board under date the 24th February 1853 to submit for the approval of the Board and sanction of Government if necessary, a draft of the rules he might consider necessary for the conservancy of the Forests of his District.

4. The subject of the Salem Jungles and their rapid distruction was brought before the Board by Captain Collyer Civil Engineer of the 4th Division, in his diary for February 1852; and reported upon by the Collector of Salem under date the 30th October of the same year.

Enc. 2 in F. Secry. to Bd. of Reve. D. P. W. 25th Nov. 1852. Enc. No. 1 in above.

5. It is sufficient at present to observe that Mr. Phillips report stated that while a portion of the jungles were rented, others were left open to be felled unrestrictedly and that Mr. Phillips was of opinion that the wooded tracts not yet rented should now be made over to any one offering a reasonable sum for privileges such as are now enjoyed by the renters of the Denkannacotta jungles by which a check, however imperfect, would be given to the system of felling and carrying off what clearly is the property of the State.

6. It seems necessary Mr. Phillips added "that I should mention that in so far as regards jungles about Coopanattum neither a system of rent or Amany check will be found to answer unless a similar check be enforced, under a corresponding arrangement beyond the Salem boundary in the contiguous tracts of the North Arcot District."

7. The Board of Revenue in reviewing Mr. Phillips' report pointed out that the Collector had not shewn that any advantages was likely to result from renting the jungles, which have hitherto been open to the public, except a petty increase of revenue. The preservation of the jungles they considered would not be better secured under a renter than under amany, or by leaving them entirely open and the Board considered that the preferable plan would be to collect a moderate fee for the privilege of cutting wood, rules being framed for defining the portions of

Pro. Bd. of Rev. 24th Feby. 1853.

wooded tracts in which the privilege of cutting timber may be authorized for specified periods the other portions being reserved until the wood has obtained a sufficient growth. Upon these suggestions the Board called for the Collector's opinion, "with a draft of the rules he might consider necessary for the conservancy of the Forests of his district."

8. Mr. Brett the present Collector states in reply that he does not consider that any rules would meet the object in view, unless the forests were taken under the Collector's charge and an establishment entertained to enforce his orders. He considers that the Jungles in the Salem District do not contain tracts so distinct one from the other as to allow of the arrangement suggested by the Board.

* 4th Decr. 1855.

9. The only mode, Mr. Brett adds that he can suggest for preventing improper waste is to fix a certain size in the girth within which a tree should not be cut. It would be difficult to ensure due attention to this rule, and the expense which must be incurred in maintaining an adequate establisment for the purpose in each Taluq would be in unequal proportion to any benefit that would probably result from it.

10. Thus the subject of the jungles of three Districts, Madura, Salem, and North Arcot, is brought before the Board with the intimation of the Collectors of Madura and Salem that rapid destruction is going on which they believe it to be impracticable to check, unless a conservancy establishment is appointed in their districts.

11. The subject of the conservancy of the jungles has also come before the Board with reference to those of the Chingleput District, and frequently with reference to those of Canara and Coimbatore.

12. Under these circumstances the Board of Revenue resolve to lay the correspond[ence] before the Government. The Board are satisfied that a necessary preliminary to any effectu[al] measures for the conservancy of the jungles is the appointment to each district of an establishment, placed under the orders of the Collector to carry out such measures as the Collector may find best adopted to the circumstances of his district.

13. The Board are of opinion that in the Districts above named, it will be easy to provide that the expense of such establishments shall be fully re-imbursed from the value of the timber now appropriated by private parties and that even if no net revenue of any large amount is now realized, the advantages to be derived from the conservancy of the jungles will be obtained without expense to the state.

14. The result of the expriments in Canara appear to the Board to be encouraging. They have been tried there, it is true, under favourable circumstances owing to the high value of timber in that province, and becauce the same establishment has been employed in Superintending the supply of Teak as well as of the common jungle timber. But even in Districts where there is no teak, or where, owing to distance from the Sea, it is less valuable than in Canara, the Board believe that the demand for timber is now so great that the expenses of conservancy establishment will at least be covered.

15. The system in Canara is not so matured that its rules can be recommended for adoption in other Districts, and in fact three different methods are there uuder trail. By one the trees are marked by the conservancy and then sold as they stand, to parties who agree to remove them within a given time and by prescribed roads. By another, the trees are felled and trimmed by the conservancy, and contracts are then invited for bringing them to the frontier depots where they are sold by public auction, the contractor receiving a certain proportion of the price realized. By another, the jungles of a certain prescribed tract are rented on condition that the reserved species and trees undersized are not felled. In each of these plans the object sought is to ensure the felling of full grown trees only, and, when these are exhausted, in one forest, to allow it to rest while another is worked.

16. Which of the systems is best adopted to a given locality must depend upon various circumstances. Where the Collector is assisted, as in Canara, by an intelligent Assistant in the Forest Department these circumstances are gradually ascertained, and the Board believe that in each of the Districts above named, as also in the Western Taluqs of South Arcot and Cuddapah, the services of such an Assistant with an Establishment varying according to the extent of his operations will be highly remunerative to the Government.

17. The Board believe that the Collector of Salem is mistaken in thinking that the jungles of his District are not sufficiently defined to admit of a rotation of the kind. The boundaries of th[e] villages and Naads are generally very well known and can be adopted for the purpose required.

18. But the Board do not deem it necessary to enter further on the subject until they have laid these papers before the Government and ascertained their wishes as to providing the establishments, which are indispensable before any efficient control can be introduced but which the Board consider need not in the first instance be large; but which should be increased as additional experience enables the Collector to extend his operations, and as proof is afforded that the cost is covered by the proceeds of the undertaking.

(A true Extract)

(Signed) G. S. FORBES,
Acting Secretary.

(A true Copy) G. S. FORBES,
Acting Secretary.

No. 78

To

Madura 9th April 1856.

The Secretary to the Board of Revenue.

Sir

With reference to the Proceedings of the Board under date the 28th January last I have the honor to annex a statement of the temporary Establishment I would propose for the conservancy of the Forests in the Cumbum valley in this District, prior to these Forests being placed under a general system.

It will be seen that I have limited it to a number barely sufficient to check the indiscriminate felling of trees, and hope, if the Board will sanction the imposition of the moderate charge of 1 Rupee for each bandy of large timber and 8 As. for small timber, to reduce the expense to Government to within 300 Rs a year.

I have made no estimate for planting, deeming my information concerning these forests too small to admit of the expection of an establishment for that purpose being at present useful. Through the Superintendent, I should hope to obtain information which will serve for future guidence.

Madura
9th April 1856 }

R. D. PARKER,
Collector.

Estimated expense of an Establishment for the preservation of the Forest in the Tengaray Talook in the District of Madura

		Pay per annum
5.	Cavulgars at 2½ Rs. each per month One for each of 5 Mettoos in 5 paths by which timber are brought down from the Hills.	150
5.	Canukapillays at Do. at 3½ Rupees each	210
1.	Pashcar at 20 Rs per month to superintend the above	240
4.	Peons to be attached to him at 3 Rs. each per month	144
		744 or per month 62

Estimated Recipts.

300 Bandies of timbers at 1 Rupees per Bandy	300
300 Do. of Rafters at 8 As. Do.	150
	450
Net expense	294

Madura
9th April 1856 }

CIRCULAR.

No. 1114.

REVENUE DEPARTMENT.

Extract from the Proceedings of the Board of Revenue dated 14th April 1856.

Read the following Extract Minutes of Consultation, under date the 3rd April 1856, No. 355

"The Government * * believe that there is much irregularity with respect to the taxing of Timber and Fuel cut in the Government Forests * * * In some localities one or both of these articles are wholly free; in others they are taxed, and there is no common system followed as to the form or rate of the tax. In order to the correction of these anomalies, the Government request the Board to institute the necessary enquiries on the subject and submit a comprehensive report on the whole of the taxes levied on Fuel and Timber cut in the Government Jungles under whatever denomination, both that the facts may be before Government at one view, and also that some clear and uniform system both of taxation and exemption may be adopted for all the Districts."

2. The Board resolve to circulate the above Extract to all Collectors, and to request that they will at their earliest convenience furnish a report embodying the information requisite to enable the Board to lay the above subject fully before the Government. Collectors are requested to state the rules under which the felling of timber and Fuel in the Government Forests is now carried on, and also to propose such regulations as they may think it practicable to introduce in their respective Districts, with the view of placing the Forests under proper control, both for the purpose of checking waste and of securing to the State a suitable revenue from the Forest lands.

3. It is requested that their reports may be drawn up without reference to information which may have been previously furnished by them on the subject at different times, so as to contain a full statement of their views on this important subject.

(True Extracts.)

G. S. FORBES,

MADRAS RECORD OFFICE
9

No. 161.

To

Madura 23rd July 1856.

The Secretary to the Board of Revenue.

1. With reference to the Extract from the Proceedings of the Board dated the 14th April last No. 1114, I have the honor to state, that in the Madura District no charge is levied on Timber and Fuel cut in Government Forests, and that the only regulation existing is a prohibition of felling in the Government Forests in the Cumbum valley without an order from the Collector in each case.

2. The best of these forests lie towards the bottom of the valley and run up from the foot of the Hills to the Travancore country which extends to the crest. They formerly contained a considerable quantity of good Timber, and supplied not only Madura but Trichinopoly and the northern part of Tinnevelly. I am afraid that fine trees are now scarce within the company's limits.

3. The greater portion of the remaining Forests growing at the foot and on the slopes of the main range of mountains, belongs to Poligars. Here and there may be some tolerably good timber on Government lands. It is certain however that timber is growing scarce dear and indifferent in the Madura Market.

4. Besides the main Chain seperating the District from Travancore there is a secondary range of mountains enclosing the Combom valley to the east, and there are hills of less magnitude in other parts of the District west of Madura.

5. The sides of these are for the most part clothed with wood. The best timber is situated within Zemindary limits; but rafters suited to native houses, and wood for the purpose of agriculture and fuel can be obtained in those which remain. There are some Jungles of less importance also in the Plains.

6. I would propose that the following charges be levied.

	Rs.	A.	P.
For large timber per bandy load	1	...	...
For small do. for rafters and other purposes............	...	8	...
For fuel per do.	...	3	...
For do. per coly load	...	...	3

7. To collect this I calculate that it will be necessary to establish 25 Mettoos at the foot of the Hills, each furnished with a Curnum at 3 Rs. and a Cavulgar at 2½ Rs. a month. For the Cumbom valley, which contains the best Forest I would also propose, as stated in my letter of the 10th April last, to entertain a Superintendent and 4 Peons to prevent indiscriminate for felling & collect information with a view to future planting each wood in the Plain. I would recommend the employment of one Cavelgar on 2 Rs. a month to aid the Hd. of the village in the collection of the tax.

8. I have no data on which to offer an estimate of the receipts. The calculation of the Tahsildars exhibit little more than 2000 Rs. but this is obviouely very far too low if firewood is taxed. I would allow no exceptions, because the judges must be a low class of servants not to be depended on in such a matter.

9. Enclosed is a statement shewing the charge per month and per annum of the Establishment recommended. It is desirable I think that for one year it should be borne on the accounts as temporary to admit of amendment on fuller information before application is made to the Supreme Government for a fixed charge.

10. I would recommend that the form of issuing permission orders for felling large timber be confined to the collector and covenanted servants to whom he may delegate it and for cutting rafters to the Tahsildars, and Peshcars but that Hds. of villages be allowed to grant tickets for cutting fuel to be withdrawn if the holder be shewn to have evaded payments. It appears to me that the great poverty of the class which gains a livelihood by cutting fuel forbids the exaction of pre-payment but that each person should be obliged to bring his bandy or load to the village choultry or other convenient place to leave it registered as a charge against him. In large villages there should be more than one such place.

Madura }
23rd July 1856. }

(Signed) R. D. PARKER,
Collector.

Statement shewing the Establishment proposed for the conservancy of Government Forests both on the hills and Plains.

Talooks.	Forests on the Hills.																Forests on the Plains.				Grand Total charges per annum.
	Number of proposed Mettoos.	Number of Conicopillies at 1 to each Mettoo.	Amount of salary at 3 Rs. each per mensem.		Number of Cavelgars at 1 to each Mettoo.	Amount of salary at 2½ Rs. each per mensem.		Number of Peshcars.	Amount of salary at 20 Rs. each per mensem.		Number of Peons to be attached to the Peshcar	Amount of salary at 3 Rs. each per mensem.		Total charges permensem.		Total charges permensem.	Number of Forests.	Number of Cavelgars at 1 to each Forest.	Amount of salary at 2 Rs. each per mensem.	Amount of salary per annum.	
			Rs.	A.		Rs.	A.		Rs.	A.		Rs.	A.	Rs.	A.						
Tenkurray	5	5	15	...	5	12	8	1	20	..	4	12	...	59	8	714...	...	...	... ...	... ...	714...
Meylore	8	8	24	...	8	20	..	...	...	...	...	...	...	44	...	528...	19	19	38 ...	456 ..	984...
Teroomungalem	4	4	12	...	4	10	...	...	...	...	...	...	...	22	...	264 ..	...	...	... ...	... ...	264...
Taudicomboo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	... ...	32	32	64 ...	768 ...	768...
Iyempully	7	7	21	...	7	17	8	...	...	...	...	...	...	38	8	462 ..	...	...	... ...	... ...	462...
Nellacottah	1	1	3	...	1	2	8	...	...	...	...	...	...	5	8	66...	34	34	68 ...	816 ...	882...
Total......	25	25	75	...	25	62	8	1	20	...	4	12	...	169	8	2034...	85	85	170...	2040...	4074...

Madura } 23rd July 1856. }

(Signed) R. D. PARKER,
Collector,

No. 239.

Madras
Office of Conservator of Forests
21st December 1857.

From,

H. CLEGHORN Esq. M. D.
Conservator of Forests.

To.

A. HATHAWAY Esq.
Ag. Collector of Madura.

Sir,

I have the pleasure to enclose a copy of an interesting Report by Lieutenant R. H. Beddome, Assistant Conservator of Forests, relating to the state of the Pulney Hills, in regard to Timber for Public purposes.

I understand from Mr. Parker, Collector of Madura, at present in Madras, that permission was given by him to the Hill people to cut firewood and posts for Housebuilding purposes, but as he well remarks "it was never contemplated that Teak-saplings should be taken for such purposes."

I trust that you will agree with me that unlimited license to fell timber is highly inexpedient, and that you will kindly instruct the Tahsildars to preserve the Teak and Blackwood saplings with special vigilance.

I regret that Mr. Beddome, (who is now Superintendent of the Annamallay Forests) did not visit the Cumbum Valley, which Mr. Parker informs me is the great source of supply for the timber required in the towns to the Eastward.

Mr. Beddome has put together a careful Catalogue of the vegetable production of the Pulney Hills, which will probably appear in the next number of the Madras Journal of science. I hope to send you some spare copies for distribution.

I have the honor to be,
Sir,
Your Most Obedient Servant.
H. CLEGHORN,
Conservator of Forests.

No. 11.

Coimbatore 5th November 1857.

My dear Dr. Cleghorn,

I have the honor to report that I have completed my tour in the Pulney range, I have thorughly explored all the slopes and the forests on them. There has evidently been a systematic destruction of timber going on for the last twenty years or more in every direction in this range. It is said that orders were issued 3 or 4 years since by the Collector of Madura to stop the indiscriminate felling of timber, if such is the case, these orders are no where attended to, and winked at by the native authorities. In many places, there has at one time been a considerable quantity of Teak, and Blackwood (*Dalberyia latifolia and D. Sissoides*) also on the northern slopes, Cungilium (*Shorea robusta,*) almost all the large trees of these timbers have been long since felled. Teak and black-wood saplings are yearly springing up, these are felled, when their scantling is about that of a man's arm, and used as posts, &c. the natives prizing the Teak especially as they say that the white ants will not touch it. Whilst I was at Pulney, I saw 10 young teak saplings, none of them perhaps thicker than my arm, brought in by the woodcutters, and sold to an Overseer (a Mr. Bywater) as posts for a shed that he was building near the public Bungalow, saplings that would have yielded magnificent timber years hence, this is only an instance of the destruction that is daily going on. I spoke to the Tasildar on this subject, and asked him if it was allowed, he said, that there was an order that no timber should be felled above the thickness of a man's arm, but they were allowed to cut small timber like that. Surely the destruction of such timbers as teak and blackwood might be prohibited. On the slopes near Pulney and between that place and Verupatchy I observed a great quantity of timber cut and being carted away, chiefly Vengay (*Pterocarpus Marsupinum*) and Veckalie (*Conocarpus latifolius*) some logs of good size. On the lower slopes in this direction, there is a scattering of Teak, but all trees of any size have long since been destroyed, nice young saplings springing up, are felled, as I have above mentioned. There is also blackwood, of this tree I observed a great many saplings, about the foot of the ghat which ascends to Cowajee and for some way up the rocky slopes, they are being felled, however, by the woodcutters, I saw one large tree of this timber being carted away from the jungles, though I did not succeed in finding any trees of size, standing.

Ascending to Poombarry from Pulney there is a very extensive alpine basin with high hills all round, in this, and the ravines and Valleys formed by the spurs to the West of it below Ulloorankunvay I found no teak, the timber, particularly in the large basin has been much destroyed.

The timber here is chiefly the following.
Pterocarpus marsupinum (Vengay)
Conocarpus latifolius (Veckalie)
Grewia tilicefolia (Tarrada)
Emblica Officinalis
Briedelia
Terminalias 2 scarce
Acacia Sandra (Baga)
Acacia Odoratissima.
Dalbergia latifolia (Todakuttay) scarce and poor.

Of the two Acacias, I observed several trees that had been felled and were being cut into small logs.

On the slopes far down below Kookul in a northerly direction, the jungle has been much cut, there has at one time been a good quantity of Cungilium (Shorea robusta) in this locality, there are however only a few poor trees now left standing. This timber is most greedily sought after by the natives for house building. Further down on the spurs near the plains, and below a hill called the Koombootookee mallay, I found teak, a good quantity has been cut here, and only worthless trees left standing.

I visited the Mungapatty valley, lying to the West of the Pulney range, here timber has been almost entirely destroyed, chiefly to make way for cultivation. There is no teak here. Down the slopes to the S. W. towards the Uggamullay Hills, I found that the jungle had been much cut, the spurs in some places are pretty thickly wooded, but there is nothing of any value now standing. The slopes about Wollangum have been considreably cleared for cultivation. On the lowermost spurs and small rocky hills between this Village and that of Vellay covay (near Periakolum) I found here and there straggling teak trees, and signs of a good deal having been cut.

A good quantity of Teak has formerly been cut, about the pass from Periakolum up to Kodakanal, none however now remains.

All this Western portion of the Pulnies up to the Permaulmallay and cowanjee comprizes the higher range, and is generally called the Poombarries. All to the east of this is the lower Pulnies, commonly called the Verupatchy Hills.

The higher ranges are from six to seven thousand feet in height, the plateau at the top consists of undulating grassy Hills, similar to the Neilgherries, the grass is short and every where dotted with beautiful orchideous plants (amongst which *Platouthera Sasania and P. bitea* are very conspicuous) *ophelias*, *Exacums Pedicularis*, *Gentiana* and many other plants peculiar to a high altitude. With the exception of the sholas, the higher ranges are free of any jungle or trees, save here and there a few scattered trees of "*Rhododendon arborcum.*"

There are a good many sholas up the higher range, chiefly situated, where there are springs or watercourses, some of these are very thick, and several of enormous extent, the three largest upon the higher range are. The Kookul shola (situated close to a village of that name) which extends over two hills, on the North-western face of the Pulneis.

The Minmoordi carnal shola situated at Pattoor on the southern side, and a large shola situated between that and Kodaconnal. The timber in these sholas is extensively cut by the inhabitants of the Hills.

The following are trees common in the sholas on the higher ranges.

Cyminosma pedunculata
Millingtenia pungens
Rhododendron arborcum.
Hedera obovata.
Hedera rostrata.
Hedera racimosa.
Meesa Indicay.
Myrsine capitellatax.
Olea robusta.
Do. Sp.
Chinnamon ivers (much felled by the natives)
Magnolia ? (a magnificent tree)
Michelia Pulneyensis.
Syzygium Sp.
Dodonea Burmaniona.
Rottlera pettata.
Do. tinctoria.
Pittospermum floribundum.
Bentinckia condapana.
Symplocos Sp.
Laurinece 4 large trees.
Elceocarpus oblongus }
Monocera glandulifera } Enormous trees.
Monocera tuberculata }
Kooragoo maram ?
Kooravoo ....?
Velle are ....?
Noorle ....?
Wellatoo ....? (ploughs always made of this)
Guidium eriocephala

and various other trees not in flower and with which I am quite unacquainted, amongst which I have little doubt there are valuable timbers te be discovered.

The Lime and the Orange are also found, apparently indigenous.
The chief products of the higher ranges are Rice, Mustard, Garlic, Wheat, Barley, Vendian (Trigonella Fanum Greeams).

Tennay (Setaria italica) together with Sablob vulgaris Limes, Oranges, peaches and a few plantains are also grown. A great number of low country natives have settled on the Pulney hills. The Hill tribes are the Poliars and the Keonoovers, these latter tribes are most abundant on the lower Pulnies.

From Cowajee which is situated at the foot of the Perumaulmallay, the highest peak of the Pulnies, I descended to the lower range of the Pulnies, or as they are often called the Tandigoody and Verupatchy Hills, they are I should judge about 4 to 5000 ft. above the sea or perhaps rather more. In the Arepatty Valley below the Perumaulmallay there is a good deal of scattered jungle, the timber has been a good deal felled though, the timber most common is the *Terminalia chebula* the Vengay (*Pterocarpus marsupinum*) and the Veckalia (*Conocarpus latifolious*).

The vallies between Vilputty and Cowajee are more or less wooded, I here also found the Cungilium (*shorea robusta*) but no good trees of it left standing. The Warre bakee river runs through this valley and there is a fine fall. Near Pussinkud I saw a few large Teak trees, the only ones that have apparently escaped the general destruction.

The slopes down to Tempollium are extensively wooded and there is Teak and Cungilium, almost all destroyed however, the Cungilium is I know still cut and I have no doubt the Teak saplings also when any are found worth cutting. On the slopes near pullatoor, sandal wood is also found in small quantities.

The lower Pulnies are much more wooded than the higher range, they are almost every where covered with a rather stunted jungle of trees. The following trees are most numerous.

Conocarpus latifolius (Veckalie).
Terminalia chehula. Very abundant
Bignonia xylocarpa
Sterculia guttata.
Catharto carpus fistulus.
Emblica Officinalis. Atalantia monophylla.
(Erythrina) Indica. Sclerostylus atalantioides.
Genelina arborea.
Zizythus xylopyrus.
Grewia tiliaefolia.
Cauthium umbellatum.

The trees *are generally rather* stunted. I observed a good quantity of the black dammer tree (Canarium strictum) towards Iyempollium. The Hill people never extract the dammer, and are apparently ignorant of the uses of the tree.

The cultivation on these lower ranges is very considerable, compared to that of the higher ranges, about Punnikad and Tantigoody all the vallies are under cultivation.

The chief products of the lower ranges are Turmeric.
Plantains, Mustard, Castor oil.
Vendiam (Trigonella Fanum Greecum).
Camboo (Pencillaria spicata(.
Ragee (Elensive Caracana)
Varagoo Panicum miliaceum).
Tennay (Setaria Italica)
Mangoes, Citrons, Limes, Oranges, Cardamoms.

The shola forests in the vicinity of Tandigoody and Perayoor are very extensive, and contain trees of enormus size. The black dammer and the wild nutmeg trees are abundant. These sholas, however, are daily disappearing before the Plantain groves. To prepare a Plantain grove, a large tract of shola is burnt down, this forms a fine soil for the Plantain. Acres of fine shola are destroyed annually in this manner. I believe, that orders were passed to stop this whole sale destruction, if so, the orders are not attended to in the slightest degree.

Near Tandigoody, Cardamoms are also cultivated to a great extent. To form a Cardamom grove the small trees and underwood are burnt but the larger trees are left standing.

The following plants yield Valuable fibres for rope &c. and are much used by the natives on these lower ranges.

Kat murke nar	Guidia eriacephala (grows to a tree)
Valca nar	Grewia asiatica
Surke nar	Grewia abutitifolia

Artocarpus intigrifolia is most abundant in all the sholas of the lower ranges, particularly at Perryoor and Paucheloor.

The following timbers are much used by the natives here.

Nawar .... (engenia jambolana)
Maiglan........... (Vitex alata)
Cottam pallam .. (Terminalia Catappa)
Kammalla ... .. (Genelina arborea)
Kail .... ? used for ploughs.

The timber of Genelina is highly spoken of.

The mace round the wild nutmeg (Palmanee Kam) is used by the natives to color their teeth. A Beer is made from the raggee (*elensive*) the flowers of Vitex hegundo are used as a hop to ferment it with.

Into the toddy which they draw from the Caryota weens (a tree very abundant here) they fling in some of the bark of Olea robusta which immediately causes fermentation.

Girardinia Leschenavitia a plant yielding a valuable fibre is most abundant here, the natives however are ignorant of its uses.

The leaves of Dodonea Burmainava are bound on swellings produced by sprains &c. it is said with great effect, a decoction of the leaves is given internally in cases of leprosy.

Polygonum sp. .... }
Acalypha Indica .... } used medicinally.
Flowers of Kalanchoe grandiflora }

The sholas are very thick about Paucheloor and less destroyed, apparently than at Pandigoody. The black dammer tree is very abundant here. There has at one time been a good quantity of Teak on the slopes between Pooryoor and Verupatchy and also on the slopes below Pacheloor, it is now almost entirely destroyed. There is black wood also, which is still at times cut and carted into Dindigul, and Madura for sale. I did not myself observe any large trees of this timber standing and as I was over a great portion of these jungles there cannot be much left.

I have the honor to remain
my dear Dr. Cleghorn
Yours Truly

(Signed) R. HENRY BEDDOME,
Asst. Conservator of Forests.

To Dr. Cleghorn,
Consr. of Forests.

(True Copy)

H. CLEGHORN,
Conservator of Forests.

No. 14.

Dindigul, 19th January 1858.

From

J, R. Cockerell Esq.
Acting Sub Collector.

To

A. Hathaway Esq.
Acting Collector of Madura.

Sir,

Although I have not collected all the information I desired on the subject yet, as I am about to leave the Sub Division, I take an opportunity of laying before you the difficulties which lie in the way of giving full effect to your instructions in regard to the preservation of the Forests, received with Lieut. Beddome's Report on the Pulney hills and copy of a communication to your address from the Conservator of Forests on the 4th instant.

2. The impolicy of permitting the forests to be felled without discrimination has for some time been recognized & circulars have been sent to the Tahsildars adverting to the havoc, it was understood, has been for many years going on and instructing them to permit no one to cut without a pass from them.

3. The passes were to specify the number of logs for which permission was accorded and to fix a period within which they were to be cut and carried away. At the same time warning was given that any party cutting without permission would subject himself to penal penalties.

4. I have every reason to know that these *orders* have been carried out, but at the same time from the conversations I have had with the Tahsildars and from circumstances that have fallen under your observation, I cannot but suspect that wood *is* smuggled away from the forests and that my *intentions* have in this manner been evaded.

5. In compliance with your instructions I have now made the orders more stringent. I have signified that all passes granted in future will be liable to inspection and comparison with the wood they are intended to cover by Police Officers, at *all* the stations along the road to its destination and have reiterated the penalties that will be incurred by parties found attempting to smuggle. I have also desired the Tahsildars *to use such measures as may be in their power* to preserve the young saplings, and finally as a check upon the applications made for permission to cut, have directed that all parties seeking such permission should bring with them a note from the Police officer of the town in which they reside, specifying the purposes for which the wood is required and the quantity which will in his opinion be necessary. This voucher will effectually prevent parties requiring wood for houses from obtaining sanction to cut more than, sufficient for the object. The scale I have laid down is at the rate of 2 bandy loads of wood for each anganem or square of 10 feet to be constructed. I trust these measures will meet your approbation. They are somewhat stringent, but will not more than suffice to constitute a thorough check.

6. In conjunction with them the Zemindars have been requested to grant passes for all wood cut in their estates, and this will be accomplished by the incubency on parties conveying it along the road to show if necessary the source from whence it has been obtained. The inconvenience this may in some instances entail will force the parties to require passes even if Zemindars should be unwilling to grant them, which I do not apprehend however will be the case.

7. You will not fail to have observed that these efforts at conservation though calculated to check the *quantity* will not ENSURE the *quality* of the wood cut. Our establishment as at present constituted is completely inadequate to the latter object and though I have drawn the attention of the Tahsildars to the desirability of preserving saplings, I imagine it will be found impossible to depute even a Peon to point out the trees which may be felled in each instance supposing which is not probable that he possessed the knowledge to make a proper selection. The Tahsildar can only reiterate his orders. *Strict conservation* can only be secured by an establishment appointed for the purpose. On this point I should be prepared to make a suggestion, if called upon, describing the means that might be taken to provide for in some degrees at least the expenses that will be incurred together with other details.

8. It will now be well perhaps that I should make a few cursory remarks on the forests in this Division. They exist on the upper & lower range of the Pulney hills and in the Cumbum valley. There is also wood on the hills about Iyloor and Vadamadura in the ayen, but this is of no value. In the Zemindaries the Hills of Cunnivady are clothed with forest. The Seroomalay Hills in Ammanaickenoor; and the Zemindaries of Aygoody with the Moottah of Rettiembady of Bodinaickenoor and Tavarum possess the slopes of the Pulneys facing them. The Zemindary of Guntamanaickenoor is for the most part covered with forest, extending south of Andiputty, until its joins the magnificent range of the Travancore Hills. In this Zemindary there is far south some very fine Teak.

9. The forest on the Pulneys has been fully described by Lieut. Beddome. On the lower range though more luxuriant than on the upper it appears not to be nor indeed ever to have been of any great value. The Black and Rose wood &c. is scattered and does not exist in large clumps. Some of the jungle wood is however adapted for house building and this it might be found worth while to preserve.

10. The great source whence all the valuable wood in Ayen comes is the Cumbum valley. The forest on the eastern side extending from north of the springs of the shurly to beyond Goodaloor to the South, though much cut away & destroyed is still fine. It contains Teak Vengay, a

hard red wood, Koongilium the tree from which resin exudes, well adapted for beams, Paramboy a yellow wood valued for its properties of resisting decay, even when assailed by moisture and the attacks of white ants. Pulichi also a yellow wood adapted for wheels & bandies & Todacatty a red wood which makes excellent planks and issued for boxes &c. There is also some Bamboo of superior quality. Bamboo is found also in considerable quantities on the lower range of thes Pulneys, where numbers make a livelihood employing it chiefly for basket and mat making.

11. In the Zemindaries Cunnivady has Vengay, Vassempunny adapted for posts and rafters, Kadukay, Madahiry vemboo or chittagong wood and Bamboos. There are also isolated trees of—Teak and Blackwood. The slopes of the Pulneys contain small Vengay and Kadukay Todahatty, Paramby Manjay Kadamboo and nirkadamboo (yellow woods) Karoontoovaray a Black wood Vekkaly and other more or less useful woods sparsedly scattered here and there. There is also as I have said Bamboo. I must add in enumerating the above that the names are local in many instances the woods therefore might not be recognized by them elsewhere.

12 The wood in the Sirumalays is more or less of the same description as that on the Pulneys.

13. The routes by which the wood is taken to Madura from the Cumbum valley are by Guntamanaickenoor and Andiputty. and by Periacoolum Pattalagoontah &c. From the other side wood is conveyed to Madura through Cunnivady and Ammainaickenoor and in small quantities to Trichinopoly viâ Dindigul on the one hand and Oopiliaputty, Vadasendoor and Goochiliumparay on the other.

I have the honor to be,
Sir,
Your most obedient servant.

J. R. COCKERELL,
Ag. Sub Collector.

REVENUE DEPARTMENT.

No. 83.

Extract from the Minutes of Consultation under date the 20th January 1858.
Read the following letter from the Conservator of Forests.

Encloses copy of Report by Lieutenant Beddome, Assistant Conservator of Forests, as to the present state of the Pulney Hills in regard to Timber for public purposes, and recommends that instructions be sent to the Acting Collector of Madura to preserve the Teak and Blackwood Saplings. Transmits also a list of the vegetable productions of the Pulney Hills and recommends that it be printed in the Madras Journal of Science, and that 100 copies be struck off for distribution,	(Here enter 22nd December 1857, No. 241,

As requested by Dr. Cleghorn, the Right Honorable the Governor in Council authorises the publishing in the Madras Journal of Science of the list of vegetables products of the Punley Hills, which accompanies Lieutenant Beddome's interesting report, for which purpose the original will be at once returned to him, and that 100 additional copies be struck off for distribution, of which 5 copies will be forwarded to the Government office.

2. The Government regret to observe that the wholesale destruction of valuable Timber on the Pulney Hills appears to have been but little checked either by the orders given by the Collector, or by those of Government, issued in May last, totally prohibiting the further destruction of the Forests for the formation of plantain gardens, and that Teak, and Blackwood Saplings, are felled indiscriminately with other less valuable woods for erecting sheds, and numerous purposes, for which the commoner sorts would answer almost equally well.

Extract Minutes Consultation, 5th May 1857.

3. The Board of Revenue will be directed to call the Collector's particular attention to this subject, and to desire him to report how far the orders of Government above mentioned have been carried out. He will be further instructed to prevent by all the means in his power, the felling of Teak, or Blackwood, whether Saplings or trees of larger growth, without which it is hopeless to attempt the restoration of the valuable Forests so ruthlessly destroyed in past years.

4. It would appear from Lieutenant Beddome's report that an idea exists among the people, including the Talook authorities, than any trees not larger in girth than a man's arm may be felled for firewood, or for purposes of house building. This practice should be strictly confined to the less valuable kinds of wood, and the cutting of Teak and Blackwood totally prohibited. It is most improbable that any Tahsildar can honestly have believed that Teak Saplings might be felled, when the cutting of the larger trees is strictly prohibited.

(A true Extract.)
(Signed) H. FORBES,
Acting Secretary to Government

No. 318.
Forwarded to the Ag. Collector for early report.

Revenue Board Office,
Fort Saint George
23rd January 1858.

By Order.

J. D. SIM,
Ag. Secretary.

To A. Hathaway Esq. Ag. Collector of Madura.

No. 32.
OFFICIAL MEMO.

The Acting Sub Collector has the honor to request to be informed whether he is to make a Report upon Circular of the Board of Revenue No. 4180, dated 26th November 1857.

Dindigul,
28th January 1858

F. S. CHILD,
Ag. Sub Collector.

To A. Hathaway Esq. Ag. Collector of Madura.

No. 144.

Madura, 4th February 1858.

From

A. Hathaway Esq. Ag. Collector, Madura.

To

F. S. Child Esq. Ag. Sub Collector, Madura.

Sir.

1. With reference to your official Memo No. 32, I have the honor to request that you will at your earliest convenience visit the forests in the Combam valley, and report the result of your enquiry into the nature and condition of the trees, especially Teak and Blackwood.

2. To prevent the further destruction of trees, it will be advisable to refuse all Darkhasts for plantain-gardens there, and touching permits for cutting wood, the amount required, and its object, should be clearly stated by the applicant.

4th February 1858.

A. HATHAWAY,
Collector.

No. 38.

Madura,
5th February 1858.

From

A. Hathaway Esq. Ag. Collector.

To

G. S. Forbes Esq. Secretary to the Board of Revenue.

Sir,

1. With reference to the *instructions of the Borad directing me to forward an early report with reference to para 3 of an Extract Minutes Consultation under date the 20th January 1858, I have the honor to state that both previous to & subsequent upon the receipt of a copy of Lieutt. Beddome's report strict orders were issued to prevent the destruction of the trees.

*23rd January 1858 No. 318

2. I learn from the late Ag, Sub Collector Mr. Cockerell, that the only way to prevent the destruction of the trees on the Palney Hills and in the Cumbom valley, is to appoint a pensioned Europian Sergeant or an active East Inian as ranger in the latter pla ce and a Pariah Ameen on a good salary with Pariah Peons to watch the Forests on the Palney Hills.

The Hill Ameens are reported to be useless, never residing on the Hills, the climate of which they dislike, and never visiting them save when they hear of the approach of a Europian Officer.

3, Mr. Cockerell's opinion is that the soil of the Palneys being light and friable consisting of a few feet of decayed leaves, and based upon granite will not admit of the teak trees growing to any size.

4. Of the slopes of the Cumbom valley, on the contrary, the soil is rich loam and the strict conservation of this would be highly advisable.

5. There are only two outlets to this valley, so that it could be easily watched and no bandies of wood should be permitted to pass, without the rawanahs being scrutinized.

6. With the aid of the river Shoorly saw mills could be established.

7. As wood even for firewood is becoming very valuable and the presence of hills influences the falls of rain. I consider it essential that a special staff be organized for the conservation of these woods.

8. It might also be a question whether Government would not be justified in imposing some tax upon the numerous class who live by felling the valuable bamboos which grow in the valley.

9. I have instructed the present Ag. Sub Collector to visit the Cumbom valley & report upon the teak and other trees there.

10. A copy of the *letter from the late Ag. Sub Collector Mr. Cockerell is herewith forwarded.

*19th January 1858 No. 14.

5th February 1858.

A. HATHAWAY,
Ag. Collector.

No. 1517.

Extract from the Proceedings of the Board of Revenue, dated 29th April 1858

Read letter from the Acting Collector of Madura, dated 5th February 1858, reporting the measures he has adopted for the preservation of the trees on the Pulney Hills and in tne Cumbom Valley, and transmitting copy of a letter to his address from the late Acting Sub Collector Mr. Cockerell on the subject with reference to Extract Minutes Consultation, dated 20th January 1858, No. 83, R. D.

In Con. 29th April 1858,
In Con. 23rd Jany. 1858.

[Here enter No. 38.]

Transferred to the Conservator of Forests.

(A true Extract.)

G. S. FORBES,
Secretary,

To H. C. Cleghorn Esq., M. D. Conservator of Forests.

CIRCLAR,

No. 3162.

Extract from the Proceedings of the Board of Revenue, dated 19th August 1858.

In Con. 19th August 1858. Read Extract Minutes Consultation, dated 5th August 1858, R. D,

Reviewing the report of the Forest Conservator of his operations during the past official year, and stating that this and the detailed account of his two assistants will be submitted to the Honorable Court. (Here enter No. 1086.)

Ordered that copies of the above Extract Minutes Consultation and of Dr. Cleghorn's report be circulated to all Collectors and that the attention of the Collectors of Canara, Madura and Coimbatore be drawn to paras 3, 6 and 22 of the former.

(True Extracts)

J. D. SIM,
Secretary.

From H. CLEGHORN, Esq., Conservator of Forests; to the Secretary to Government, Revenue Department, Fort St. George; dated Mangalore 1st May 1858, No. 337.

SIR,

1. I have the honor to report for the information of the Right Honorable the Governor in Council that during the past year I proceeded on my first tour of inspection, traversed Mysore and visited the Depôts at the months of nearly all the rivers on the Malabar Coast, examining great part of the Western Ghauts with a view to ascertain the exact state of the Government Forests, their extent and capabilities. I travelled through the most wooded portions along the chain of Ghauts, ascending and descending by the mountain passes as per margin, from the Bombay Frontier down to Ponany. I afterwards went across the Anamally Hills and round the slopes of the Neilgherry Hills. I also made a circuit of the Wynâd and twice visited the Conolly Plantation at Nellumboor, being altogether eight months absent from the Presidency.

Anisy.
Arbyle.
Boon.
Sumpajee.
Perambady.
Sissipara.
Tambacherry,
Palghaut.
Segoor.
Conoor.

2. As I have already submitted my views at length on several topics in accordance with the instructions of Government, such as

Jackatallah Plantations.
Neilgherry Woods.
Ootacamund Garden.
Anamallay Forests.
Canara Forests.
Streeharricottah Jungles.
Price of Timber.
Memorandum on Gutta Percha.

I shall here confine myself to a summary of my observations on the Forests generally and of the operations of the Forest Department during the first year of its existence, mentioning the further measures contemplated when it is in a state of more complete organization.

3. In the beginning of the century an immense almost unbroken forest covered the Western Ghauts, from near the water shed to the most elevated ridges, left to nature, thinly peopled, abounding in wild animals, and all the higher portions without exception covered with timber, and now the passing traveller looking down from the higher peaks of Coorg or Malabar, conceives that an inexhaustible forest lies below him, but as he descends the Ghauts he finds that the best timber has been cut away and that the wood contractor is felling in more remote localities. I speak especially of teak, blackwood and poon spars which are every year becoming more scarce in accessible situations. The practice in this country has been the converse of that in Europe where the soft wood is thinned out and the hard wood left. Here the valuable kinds are removed and the scrub left. By one of these authorities, burning the jungles was recommended as a sanatory measure, & to diminish the number of wild animals, but circumstances have much changed. Now the axe of the Coffee planter and of the Coomree cultivator have made extensive and often wanton havoc, devastating a large portion of the area of the primeval Forests. The former is encouraged as endeavouring to rescue the soil for legitimate purposes (except when the timber is peculiarly valuable) but the squatter who clears without leave in one year the land which he abandons the next is punished and repressed. The profuse waste has been altogether prohibited in Mysore and the Bombay Collectorates, and is checked to a great extent in Canara, but has not altogether ceased. The exertion of the Collector and Sub-Collector have, however, been very successful in keeping under the destruction, called Coomree, caused by vagabond tribes in burning wood with the view of raising from the ashes a crop of inferior grain.

See { *Dr. Hove's Travels* 1786. *Buchanan* 1801 *Lord Valentia's Travels* 1804 }

4. In Canara, the Forest Rules framed by Messrs. Maltey and Hall, and amended by Messrs. Fisher and Robinson are calculated to ensure a regulated and safe expenditure, if the subordinates do their duty, and if the trees be marked by the Conservancy establishment. In regard to Forest arrangements I may observe that Canara though still imperfectly organized is in advance of every other District. The arrangements for the Conservation of the Teak and Blackwood are so far satisfactory, but there are still difficulties as to the supply of firewood to the large towns and of house building timber in those parts where there are no auctions.

5. *Wants of Public Departments.* The requirements of the Indian Navy, the Madras and Bombay Railways, the Department Public Works, Telegraph, &c., have been unusually heavy, and the partially organized establishment was seriously crippled and curtailed for a time by the removal of Officers, Overseers, Elephants and Bullocks required in the Field during this eventful year, so that the pressing Indents of various Departments have been met with difficulty and in some cases imperfectly.

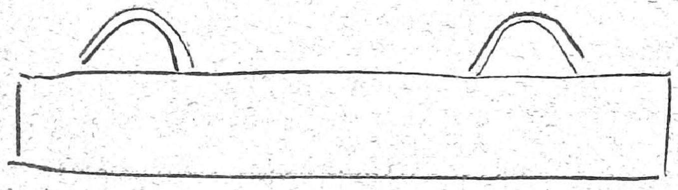
6. *The progress of the Railway* has produced marvelous changes on the face of the country, as regards tree vegetation in some districts. I may specify Palghaut, the Shevaroy Hills, and the North Arcot Hills; in these the old woods have every where fallen, to meet the urgent demand for Timber, & the pressure continues to exist in the central portions of the line between Vaniembady and Palghaut, at the two extremities the supply has been completed.

In the Official Road Book (published not many years ago) opposite Walliar we find this remark "Dense jungle, beware of Elephants," but in looking from the staging Bungalow, the traveller sees several tentative lines of Rail each 200 yards broad and so exteusive a clearing of the neighbouring Forest that no Elephant would easily find a cover. The encircling hills formerly crowned with timber are now to a considerable degree laid bare. These changes so far as I can learn have been the gradual result of unrestricted cutting. by much aggravated during the last few years, in connection with the enormous demand for Railway sleepers and for the Department Public Works. In the contracts which have been made for the supply of the Bombay Railway, one and a half Rupee has been charged per tree. In some contracts for the supply of the Madras Railway 3 or 4 annas has been the seignorage per sleeper according to the ikind of wood and the facility of transport, & with the permission of Government I would recommend that at last 3 Annas be invariably paid.

7. In other places and from other causes wasteful cutting has been observed to a less nju rious extent. Lieutenant Beddome's report on the Pulney Hills, communicated by Government to the Madras Journal of Science, describes the devastation which has been committed there inthe formation of plantain gardens. The Green Hills have been stripped of their woods& much of their beauty has departed. The reckless cutting there; however' has been vigorously checked by the Collector under orders from the Government.

8, *Slovenly felling.* The axe formerly in many parts was laid to the trunk one yard from the ground, while a further waste took place from diffuse hacking over a board surface, this unnecessary loss of timber has been prohibited by a printed Circular enjoining all contractors as well as Forest employees to cut within 1½ foot of the ground, otherwise the contractors are not paid.

9. *Wasteful trimming* The former plan of cutting logs by which one half the timber was wasted is now obsolete, I have only seen one or two specimens, and I hope that dragholes may be



altogether dispensed with, by an improved application of ropes, and the introduction of sling carts, &c. The method of trimming logs so that they may fit carts in length and width is still prevalent in many parts but is giving way to a better system. The old state of things continues only at a distance from check and control, or where there are peculiarities of tenure and few facilities of communication aa in the Wynaad.

10. *Proposed system of operations.* The trees are classified according to size.

1st Class 6 feet in girth.
2nd do. 4½ do.
3rd do. 3 feet and upwards.
4th do. under 3 feet; seedlings.

It is proposed that in every Forest that is to be worked, all 1st class trees be marked, and such a proportion should be cut down as will be naturally replaced by those of the 2nd class. This is clearly a sound principle, and if carried into practice will prevent the exhaustion of the Forests. It would be obviously impossible to fell and remove $\frac{1}{24}$ of the trees of the 1st class in every district. Therefore to facilitate the execution of this principle, it is necessary to divide each Assistant's range into six divisions, one of which only shall be worked at one time. These divisions should be formed as much as possible in accordance with the Geographical features of the District, and the Forest operations should be confined to the District having the largest quantity of ripe wood.

11. *Saving of Fragments.* In my visit to the Anamallay and Wynad Forests, I found the larger branches, tops and butts left on the side of the road, or in the place where the tree was cut, exposed to the heat of the sun and to the annual fires. I desired that all such pieces as would bear the expense of removal should be brought out of the Anamallay and Heggadevincottah Forests, and that no wastage be allowed in future. The importance of saving every foot of Teak (at a time when Government has been put to great shifts for its own requirements) has been strongly impressed upon every member of the Department. I am also very anxious that the use of this timber should ba disallowed for common purposes, as Camp Furniture, Hospital Almirahs, Accountant's Boxes and the like.

12. *Auction sale of Timber.* It having been considered desirable that an auction sale of timber unsuited for naval pnrposes (tops, bottoms, slabs and side pieces) should be held at the foot of the Anamallay Hills, Captain Hamilton, the late Superintendent, was directed to make the arrangements. Great exertions were made by that Officer, and when the Timber had been collected, every publicity was given regarding the sale. Before the auction took place Captain Hamilton was removed on account of the paucity of Officers with his Corps, and the duty devolved on his successor Lieutenant Beddome. The result proved satisfactory; the account rendered shews as follows:

	Rs,	A.	P.
Amount realized	3,391	5	8
Deduct charges	189	6	4
Leaving a net profit of Rupees	3,201	15	4

Taking the average prices obtained, the timber sold at one Rupee the Cubic foot.

In this Forest this year, after the Bombay Marine were supplied, the better logs were selected for the new Jail at Salem and the Trichinopoly Barracks, while the fragments sold by auction were greedily bought by the general trader, by the Railway Department for doors and windows and by a Native Surgeon for his Dispensary building at Poolachy. In like manner wastage has been disallowed in cutting Teak for the Military Buildings at Bangalore.

13. *Teak.* This invaluable wood has received the special attention of the Department, and I may say has occupied at least two thirds of my own time during the past year. Along the whole length of the Malabar Coast from Goa to Cochin, there is now very little of this wood in a ripe state on Government land *below* the Ghauts, and there are only three localities *above* the Ghauts where I found Teak in abundance and of good size, viz.

1st. The Anamallay Forest in Coimbatore.

2nd. Wynad and Heggadevincottah, (partly in dispute between Mysore and Malabar).

3rd. Goond Tableau, North Canara; near Dandellie. I shall briefly notice the chief pointe connected with these Forests, which stand in the order of their respective value.

The Anamallay Forests have been the subject of annual Reports to Government since 1848, when their importance was first declared by Captain F. C. Cotton, (Madras Journal), and as Captain Michael's Reports have been published in the Madras Government Records, I will only now allude to the recent changes and improvements in management of this Forest effected during the past year. After the removal of Captain Hamilton, Lieutenant Beddome, Travelling Assistant, received charge. He was in the immediate neighbourhood at the time of the vacancy.

An additional Overseer sanctioned.

The Timber slip repaired by Wuddur contract at an expense of Rupees 500.

The Bridge at Machenackenpollium has been rebuilt, much required for the transport of wood eastward from Anamallays.

The Road from Colungode has been repaired, several nullahs bridged to facilitate the cartage to Ponany.

The Overseer's house purchased.

Six Sling Carts were made up by Mr. Ross, Railway Engineer.

Arranged Depot at bottom of slip.

Site selected for Overseer's house at Poolachy during the unhealthy months.

I may here mention that the prospective supply of teak (roughly estimated at the rate of the present requirements) from the Forest now rented from the Colungode Numbody will not

apparently exceed 15 years. This is a serious consideration, as it is the only forest from which long planks suitable for a Man-of-war can be procured. I have in view a scheme for consolidating the table land of the Anamallays, that part belonging to Government as well that rented from the Colungode Numbody into one Government Forest, which should be reserve in perpetuity for the Indian Navy, and where planting operations should be systematically carried on. This, however, will form the subject of a seperate communication.

The working Establishment of the Anamally Forest has always suffered very severely from sickness, and considering the large number of Employes, I recommended to Government the location of a Medical Officer. Unfortunately Dr. Drew was removed by death before joining, and as the Inspector of Jails disapproved of the introduction of convict labour into the Forest for fear of the escape of the Prisoners, I have not again asked for the services of a Medical officer, more especially as the establishment of a Dispensary at Poolachy under Native surgeon Kanagaroyen will be of much importance to the Department, and an adjacent piece of ground has been allotted for the Overseers.

14. *Wynaad and Heggadev ncottah Teak.* The Forests on the borders of Mysore and Malabar are of great value and stand second in importance. I went through part of these Forests, in company with Captain Pearse, Superintendent of Astagram, which are about 40 miles long by 30 broad, and believe that they will supply 2000 Bandy loads annually (or say 40,000 cubic feet of Teak) without apparently injuring the resources of the Forest. There being no cultivation and a very scanty population, and the timber consequently not being required for local purposes, I would strongly urge that this should be considered a reserved Forest. From the situation and natural slope of the country, the Timber must be carried eastward, and will be extremely valuable for Military purposes in Bangalore. The new Barracks are at present being built of this Teak. It is probable that this Timber will come into use also to meet the increasing demand at Ootacamund. It is much to be regretted that no means of transport exists by which the crooks and other Naval Timber found in this Forest can be conveyed to the coast, where they would be extremely valuable. The expense of carriage by the usual route to Mysore and Manantoddy and down the Peniar Ghaut to Tellicherry is altogether prohibitory. The average price of teak at the quarterly auctions held at Mysore has been almost exactly the same as at anamallay, about one rupee per cubic foot. I have experienced great difficulty in obtaining exact information as to the extent, tenure, revenue and productions of this Forest, partly on account of its being little frequented from the fear of wild animals. In no place have I seen such abundant traces of Elephants. However the authorities at Astagram and Coorg and the Commissariat officer at Hoonsoor all drew my attention to the terrible waste of teak which occurs there, the timber being carted out in large quantity by three roads under the plea of passes from two Devastanums, the limits of whose Enam land, I have no means of ascertaining. *A particular Survey*, well drawn lines of demarcation between Mysore, Malabar and Coorg, and an improved system of regulations are required for placing this Forest on a proper footing, and securing an uninterrupted supply of this valuable wood for the future. I think this duty would be best performed by an officer of energy and character, who would work well with the neighbouring authorities, and who would constantly traverse the Forests (as was done at Anamallay by Captains Michael and Hamilton) till the system of robbery and spoliation is suppressed. I would also strongly urge the location of a European Magistrate in the Wynaad, who would enforce the observance of regulations, and see to the management of the roads, Ferries, Police, Revenue, Conservancy, &c., in that remote locality.

15. *Canara Teak.* Is of much smaller scantling generally than that of Wynaâd. It has the advantage of water carriage to the Coast, not possessed by the two last, but it has for some years been *chiefly* obtained for Naval purposes from the banks of the *Kalla Nudde* where it emerges from the Soopah Hills, and the supply has gradually been sent down from more distant localities, as in Malabar, where the Teak is now cut by the Teroopaud of Nellumboor just under the Neilgherry Peak. Above the Ghauts in the Soopah and Soondah Talooks, there is a very considerable supply of smaller wood suited for the Engineer requirements at Belgaum, Dharwar, Lingasoogoor, &c.

16. *The Goond Forest,* however, is the chief remaining reserve in Canara. I saw here several thousand trees on an elevated plateau with precipitious sides, the trees are well grown and ripe, conserved by their inacessible position, which has been rarely visited by Europeans. The Teak here is scarcely intermixed with any other tree, (the Billi Nundee excepted) and grows on slaty rock, in many places having very steep gradients. The early working of this valuable Goond Forest is of the first imporance, being much threatened with fire; some trees are already scorched at the root and much deadwood lies in the Forest.

The question for consideration is, how to get out the wood? whether by a rocky nullah with at least three small falls, or by making a road of 23 miles. This is a question I cannot venture to answer, but I may mention that the Collector Mr. Fisher and Dr. Gibson I believe incline to improving the road, whilst Colonel A. F. Cotton and Lieutenant Taylor, Indian, Navy, recommending the blasting of the rocks in the Nulla. I ordered an experiment to be made of floating 20 prepared Logs of Junglewood, branded "Goond" at the height of the flood. These were despatched on a given day but they never reached Sedashegur, having been caught in the rocky turnings of the river.

The importance of removing the valuable Teak of this Forest at an early date is so great that I would suggest that an Engineer Officer be deputed to visit and report. Captain G. W. Walker, Engineers, shortly expected from England is one of the few Europeans who have visited this remarkable place, and has I am told a knowledge of its requirements. If Government think proper to direct that officer to inspect this locality, Mr. Muller would arrange to accompany him.

As the Goond is inaccurately delineated in the Survey Maps, I have the pleasure to forward a rough Survey of my industrious Assistant, Mr. Muller, with the tracting of the roads he suggests for working this Forest. I would recommend that it be lithographed and say 100 copies struck off. When the Forest is being worked, I have instructed Mr. Muller to be present at the marking and girdling of the trees. I have reason to believe that *proper classification* and selection of the trees have not hitherto been made in the Government Forests. First class trees, *i. e.* 6 feet in girth and those commencing to decay only are to be removed at the first cutting.

17. *Teak Plantations.* I visited the remains of small teak plantations at Honore, Ankola and Sedashegur, which had been superintended by Colonel Gilbert in 1804; the trees are very poor specimens of teak, the soil is laterite and the exposed situation of the sea-shore is most unsuitable, a worse locality could scarcely have been chosen, the only possible excuse for so grave a blunder is that the peculiar requirements of the Teak tree were not known in those days.

Up the Black River. at Tarea Mullapoor is a plantation of recent date. The late Mr. poulton commenced this in 1854, there are I believe 2,000 remaining of 7,000 trees put down

18. *Conolly plantation.* The fine and promissing plantations on the banks of the Nellamboor River which were commenced about 15 years ago by the late lamented Mr. Conolly, Collector of Malabar, are worthy of a full and separate Report, which will be a Historical Record of what can be effected by artificial means. These plantations will be an imdortant source of supply in future years. They are under the immediate charge of Chatoo Menon, a Nair, who conducted all the preliminary experiments under Mr. Conolly's orders and who has watched the young trees from the day of germination.

I propose that two Duffadars should be sent, one to the Anamallays, and one to North Canara, to introduce the Conolly system of plantations into those districts.*

19. *Peon Spars.* These are becoming very scarce and consequently are perhaps more valuable than teak. Young ones especially such as are in accessible places *are most carefully preserved.* Strict orders on this subject have been given in Coorg, Mysore and Canara. In one case which came within my observation, several valuable spars were foun on a bridge, the total estimate of which was 250* Rupees. This incident will illustrate the importance of officers in the Department Public Works, Telegraph, &c., making themselves acquainted with the deseription of timber available and suitable for their wants. I may also mention that the Superintendent of Coorg has received several tenders for the supply of Peon spars and other timber at the distances of at least 8 miles from the Soolia river, showing the scarcity of such wood and the readiness of the Mangalore Contractors to carry it several miles to the nearest water carriage.

* N. B. Several instances of the same kind have occurred, Poon spars although highly prizeed for ship building are ill suited for making bridges.

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*NOTE.—Since writing this I find that the Nair Subordinates are unwilling to leave their native place. One has been found ready to proceed to the Anamallays, but none is willing to proceed to North Canara on any terms. Therefore one of the Canara Establishment will be detached for instruction to Nellumboor.

20. *Blackwood.* This valuable wood has risen much in price. Indents were received during the year both from Madras and Bombay Gun Carriage Manufactories each for 5,000 cubic feet. This tree was formerly given to applicants at 3 Rupees each, but with the concurrence of the Collector of Canara I have disallowed this practice. There is not much blackwood remaining in the Anamallay Forest, but there is a considerable quantity in the escheated forest of Chennat Nair, and it is abundant in the Wynad and Coorg. In consequence of its increasing value I have given instructions for an experimental sowing this year at Nellumboor.

21. *Sappan Wood.* This important dyewood has engaged my attention. It appears to grow with great luxuriance in South Malabar and is cultivated rather extensively by the Moplahs who plant a number of the seeds at the birth of a daughter. The trees require 14 or 15 years to come to maturity and then become her dowry. I saw more on the Banks of the Nellemboor River than any where else; why it should be there in particular is not obvious, as Malabar is generally uniform in its character. A better system of cutting and cultivating the Sappan is desirable, and the dyewood is damaged I believe by being allowed to float in salt water. The quantity raised is not great, but it grows without any care, and from the facility of water carriage to Calicut, I think that the district is very favorable for its extension, I sent a packet of seeds to Canara for experimental sowing on the banks of the Black River.

22. *The Sandall wood tree in Mysore.* Canara, Coimbatore, Salem, and a little in North Arcot has received much attention. It would appear that the spontaneous growth of this tree has increased to a considerable extent, and it seems certain that with the vigilant supervision of local officers and slight assistance to Nature in clearing the heads of young plants which are often matted down by strong creepers an addition might accrue to the revenue of these provinces. From information received from the late Assistant Surgeon Drew, I was enabled to communicate to the Commissioner of Mysore the existence of a large bank of smugglers in an unfrequented path near the Carcoor Pass, who were captured by the Mysore Horse to the number of 78 with the Sandalwood tied on their backs. This seizure effectually stopped a long continued system of robbery on the Malabar frontier.

23. The "*Gulta Percha* tree of the Western Coast" so called, has been traced from Coorg to Trevandrum. All the reliable information procurable has been condensed into a Memorandum, and a large sample has been transmitted to England for report, as to its suitability for Telegraphic and other purposes.

24. *Catechu.* The enhanced value of Cutt has caused an unusual destruction of the Acacia Catechu which was properly restricted by Mr. J. D. Robinson to certain places in the North Canara jungles to prevent total destruction.

25. *Kino,* Two thousand trees, of the Kino tree, (Pterocarpus Marsupium,) were seen along the roads through the Wynaad notched, as delineated in the * margin, for the extraction of Kino which is taken to the Coast where it meets with a ready market and is exported in wooden boxes to Bombay.

* Omitted.

As the V shaped incision appeared to be deeper than required, the Collector has given instructions for the more careful treatment of the trees. This tree is greatly prized at Dharwar not for its exudation, but for its timber, which is extensively used in the Gin Factory.

26. *Bamboos.* Immense quantities of fine Bamboos are floated down the various rivers of the Western Coast. It is one of the riches of the Provinces. They are ordinarily 60 feet long and five inches in diameter near the root, these are readily purchased standing at 5 Rupees per 1000, and small ones at 3½ Rupees per 1000, Millions are annually cut in the Forests and taken away by water in rafts or by land in hackeries; from their great buoyancy they are much used for floating the heavier woods as (Mutte) the Terminalia tomentosa and (Biti) Dalbergia Arborea, and piles of them are lashed to the sides of the Pattimars going to Bombay. The larger ones are selected as out-riggers for Ferry Boats, or studding sail booms for small craft.

In addition to the vast export by sea, it is estimated that two lacs are taken from the Soopah talook Eastward. The Malabar bamboo is much smaller than that of Pegu (Bambusa gigantea) which is 8 inches in diameter.

27. *Mode of floating timber,* It is curious to see the clever management of the Floaters who are a distinct class of persons. Rafts are of all sizes, usually longer than broad, and the

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logs bound together by the stringy bark of various trees, and stout branches passing through the dragholes at right angles to the log. In the centre of the raft a small hut is generally made of thatch, or bamboo lathes covered with Palmyra leaves, in this the floaters are sheltered at night. It is not usually considered advisable to float logs when the river is at the fullest, as the raft is apt to go over the bank and be stranded. Numerous logs may be seen high and dry all along the sides, and the following year the flood lifts them. At night, floats are brought to under steep banks or deep water, they are then tied to the trunk of some adjoining tree, occasionally the banks fall in and serious accidents occur.

28. *Introduction of Saw Machinery.* This has been much under consideration, there can be no doubt that it is most desirable to substitute the saw for the axe, especially when the planks are being prepared, economising both time and labor. Great efforts have from time to time been made with more or less success to induce Sawyers voluntarily to resort to the forests for employment.

As to the question of introducing circular saws to the little frequented forests the measure would be attended with this difficulty that, when the heavy machinery was conveyed to the Forest Depot as the Elephant station in the Annamallays, it must either be carried back again at great expense or left exposed to the mischievous effects of extreme damp and perhaps to injury from herds of Elephants. At present, therefore, it seems more desirable that saw pits should be for the most part confined to the Coast Depots, and that their management be left to private enterprise.

29. *Forges for Charcoal.* One of the difficult questions connected with forest conservancy is regarding the making of charcoal for iron-smelting. The forges in Canara are few, but in Dharwar, Belgaum, Bellary and Mysore there are many ; and parties go into Nugger or North Canara to make charcoal in large quantity. They make a hole 4 feet deep, 8 or 10 feet broad, fill it with wood and cover it up. Having set fire to it $\frac{2}{3}$ or $\frac{3}{4}$ is burnt, $\frac{1}{3}$ or $\frac{1}{4}$ remains as charcoal. Not only is there great waste in the making of charcoal, but there is great waste when made, the charcoal being inferior. The Blacksmiths insist upon the wood being either of bamboo or jambay (Inga Kylocarpa) which is without reason, as I saw beautiful charcoal prepared by Mr. Lowry at Tuddry of the common woods.

Brice and Co., have instructed 20 charcoal burners, who use the more common kinds of wood, and turn out a superior article; they regulate the furnace by small holes, as do the Porto Novo Iron Company. Mr. Boesinger manufactures good charcoal. Dr. Forbes do. do. at the Gin Factory Dharwar. It is difficult to instruct Native Artizans in this matter, but it is hoped that the example of so many Europeans may be useful.

30. *Executive Engineers, Surveyors, &c.,* when making traces in the Ghauts or visiting secluded Forest Districts might render good service to this Department by informing the nearest Revenue officer or Conservancy emploe when they see the firing of the jungles or destruction of timber.

I have received on several occasions useful information from the Chief Engineer, who has sent me Extracts from the Diaries of his officers bearing on the destruction of timber. On the occasion of making a new road or increasing the breadth of an old one through a valuable Forest (as at Yellapoor) it would be desirable that the District Engineer should communicate with the Forest Assistant, so as to give an opportunity of removing the timber which is often rolled down the side of a Ghaut, or left to decay where it falls.

31. *Noxious Insects.* I have called the attention of my Assistants to the noxious Insects of country, the depredation of several common Coleoptera, being most mischievous rendering the rafters a mere honeycomb. The importance of immersing the logs of all woods except teak in solution strongly impregnated with mineral salts as in Baurgerie's process has received my attention.

32. *Provisions for the Ryots' wants.* It is most important that whilst strict supervision is enforced in the Government Forests, Conservancy should not be carried so far as to interfere with the supply of Agricultural Implements to the bona fide ryot, or to obstruct the application of leaves and branches for Alkaline material to fertilize his fields. In North Canara the ryots have their *Coomuc* 200 yards above or 100 yards below Ghaut, enclosed pieces of land available for the use of their fields which is a very good arrangement when allowed to such estates as have been surveyed. But I do not recommend this to unsurveyed estates because it leads to fraudulent abuses. It is surprising how strictly these Coomucs are conserved.

33. *Mercantile classes buy wood.* I have already ruled in cases referred for decision that the ryot is from old custom entitled to wood for his plough, &c., but that the sowcar who wishes

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to make a cradle or a Palanqueen or requires wood for house building, &c., must pay for the material. There are periodical auctions at nine places in Canara where the sowcars can suit themselves, and an extension of the system so as to have talook Depots is under consideration.

34. *Coffee.* The successful cultivation of the coffee plant is extending remarkably, and applications for grant of Forest land pour in upon the Revenue Authorities. In the Sisipara, Perambady and Sumpagee passes vast clearings are being made. In the Coonoor Ghaut six large plantations may be seen, and there are very large and numerous holdings, above 30, in the Wynad, which from year to year will increase. The plant has succeeded admirably in Mysore, and there are patches of cultivation in Madura and even in North Canara. I may observe that in granting Forest land, it seems to me that while the destruction of Forest (Teak, Ebony and Poon spar excepted) for *bona fide* cultivation may be considered legitimate, yet the preservation of the fringe along the crest of mountain ridges is of special importance in a climate point of view, and this should never be given over to the axe. As these mountain crests are not suitable for the growth of coffee, the restriction cannot be complained of.

I here beg to annex Extract of letter to the Collector of Coimbatore dated 2nd October 1857, which contains my views in reply to a reference upon this important matter.

"The higher Sholas clothing the Ghauts on both sides are of the utmost importance, and "the climate is believed to suffer the greatest detriment from their removal. I would therefore "suggest that the high-wooded mountain tops overhanging the low country (such as Hoolicul) "should be preserved with rigid care, the Forest there should not be given over to the axe, lest "the supplies of water may be injured. It is the opinion of many persons, in which I concur, "that the vast clearings which have taken place have had a share in producing the irregularity "of the monsoon which has of late years been so much complained of in Coimbatore. In order "that the course of the Rivulets should be overshadowed with trees, I conceive that the hills "should be left clothed to the extent of about ⅓ of their height from the top leaving ⅓ of "the slope and all the valley below for cultivation, this available portion would far exceed in "extent the higher ridges which should be conserved."

It seems to me that the immense tracts of virgin Forests in the rich valleys of the Koondahs are eminently suited for coffee cultivation, and the removal of the Forest *there* would not be attended with the same disadvantage as on the Eastern Ghauts, where the drier climate does not admit of the same effort at speedy reproduction.

If it be desirable to lay down a general rule in regard to the limits of elevation within which clearing for coffee cultivation should be allowed, I would specify from about 2,500 to 4,500 feet, this being I understand the extreme range within which coffee planted on a large scale is found to thrive.

It is important to give *every facility* for the cultivation of coffee, but it is desirable to limit the clearings of those situations where this peculiar shrub can be grown with advantage. I have observed some clearings, where the ground is so precipitous that it is extremely improbable that the soil can last many years.

It may be urged that in general, people are sufficiently alive to their own interests to select only those sites which are in every way eligible, but from the inexperience of many who embark in coffee planting, it seems desirable to lay down some rule. I need only point to the vast amount of land cleared and subsequently abandoned both in this country and Ceylon, either before or after planting.

It is to be regretted that independent of considerations of climate, Coffee cultivation should find a place in those parts of the forest where the timber is of a *superior* description, and which at present Government is put to great shifts to obtain for public purposes.

I would therefore add, that in places which are accessible and which contain very fine timber, it seems desirable that one of the Assistants in my Deparment, should have on opportunity of removing such timber as is available, or of marking it, with a view to its being taken at a valuation by the occupier, should he desire to do so. I especially allude to 1st Teak, 2nd Blackwood, 3rd Vengay and 4th Kurrah Murdah.

35. *Tea.* I think it right to bring to the notice of Government the thriving condition of a Tea Plantation near Coonoor belonging to Henry Mann Esq., who has devoted much attention to it and has spared no expense. This is a very interesting experiment. The best varieties of the shrub were imported from China in 1854, the seeds having been given to Mr. Mann by Mr.

Fortune on his return from the Tea growing Districts. There are now about 2,000 vigorous plants, and to ensure success it seems only necessary to procure a supply of workmen to teach the manipulation and separation of the leaves.

36. *Difficulty of procuring Assistants.* The removal of Captain Michael to Hydrabad followed by the withdrawal of Captain D. Hamilton and the death of Assistant Surgeon Drew put me in a difficulty for some time. The two first were most zealous and willing Assistants, and the last from his patient habits of enquiry and Botanical knowledge gave promise of peculiar usefulness. The vacancy has been filled by Lieutenant Beddome a young man who has a good knowledge of the vegetable kingdom, and was recommended to Government solely on account of his powers of observation and description, he is an excellent explorer.

I have issued a "General instruction to the Forest Assistant in a circular and try to persuade each to keep a small arranged Herbarium of Flowers and Fruit bearing specimens of *all Forest trees and their varieties* with notes. By inviting them to do this, I trust some will become at least *Observers*, if not Botanists.

In this Country there is no class of persons who have made it ther business to attend to Forestry as a branch of Rural Economy, and of all those (about 200) who applied for employment there was not one who could be considered an intelligent Forester, except Mr. McIvor Superintendent of the Ootacamund Garden, Mr. S. Muller, Assistant Conservator North Canara, who had been early trained in the Black Forest of Germany, and Corporal Hall who had been a Forester in the Midland Counties of England. Most of the others have to be paid to learn the outlines of their duty, and generally speaking those who have been Soldiers or Artificers are the most teachable, and give least trouble. They have been well disciplined and obedience comes natural to them.

37. *Contractors.* Instead of finding a class of persons possessing knowledge of the Timber trade, there is only a multitude of rogues ever ready to tender for Contracts to receive advances and to appropriate them. On the Western Coast there are a few Moplahs about Calicut and Prubhoos at Mangalore who possess Elephants the only efficient means of dragging Timber. These last take gangs of Coolies to the Coorg and Malabar Forests and show considerable energy in forming temporary dams and floating down Poon Spars, &c.

38. *Sub Conservators in Canara.* The two subordinates I found in North Canara under Mr. Muller (Mr. Gilbert and Mr. Buonaparte Rodrigues) appeared to be much too sedentary in their habits, deputing Peons into the Jungles when they should have gone themselves and the like. The former has been removed from the Department on account of incapacity, the latter is suspended under an enquiry for receiving bribes.

39. *European Contractors.* Two Contracts have been entered into with Mr. Ross, Resident Railway Engineer, Coimbatore, whereby he has been permitted by his first contract to cut sleepers of certain specified woods in the Forest near the foot of the Anamallay paying quarterly seigonrage at the rate of 3 Annas per Sleeper, and by the second he was empowered to fell 2,000 trees in the Williar Jungle, at the rate of Rupee 1-8 per tree.

Messrs. Brice & Co. an enterprising Firm tendered for and obtained permission to fell 2,500 junglewood trees within the Forests of Ekagolly and Codloogaddey in the Soopah Talook North Canara for supplying Sleepers to the Bombay Railway Company, and agreed to pay Rupees 2,500 (half in advance) being at the rate of 1 Rupee per tree, and on exportation a further seignorage of 8 Annas per tree, and also such quantity of bamboos as they may require to float down the 2,500 trees at the rate of Rupees 5 per 1000 bambees. This contract is to extend over a period of two years closing 31s December 1859.

In the above contracts with Mr. Ross and Messrs. Brice & Co. strict provisions are made prohibiting their felling of valuable kinds of wood, such as Teak, Blackwood, &c.

40. *Establishment of Depots on Western Coast.* I am desirous to seeing well arranged Timber Depots established at the mouths of the Rivers on the Western Coast, and a classification of Timber to suit the various purchasers. European Pensioners of reputed integrity will probably be found ready to take charge of these Depots. Contractors have this year been required to separate sound from unsound timber whilst still in the water. I pointed out at Sedashegur and Hullial some desirable improvements but the operations were suspended on account of the recent disturbances. At the latter place the Depot occupies an open space and a very large quantity of wood is scarcely safe without an enclosure. A small house for the European Overseer is also repuired. The establishment of Coast Depots involves an extension of the Depart-

ment not contemplated, but I believe that from the absolute impossibility of finding a trustworthy agency in the interior this is unavoidable.

41. *Additional Overseers required.* There are several localities as Pootoor in South Canara, Paulghaut, and the Hills South West of Vellore which require the supervision of a qualified Overseer.

I am now on my way to explore the capabilities of the first of these places which formerly yielded much timber. At the second, I believe the salary of an Overseer may be more than met from the aggregate receipts of the Walliar Jungle and the escheated Forest of Chennat Nair at present leased to Mr. Tomlinson, and at the third. which I visited a fortnight ago it is of impoartance that supervision should be exercised over these Hills, which the neighbourhood of the Railway has tended so much to denude. The demand for firewood has been so much enhanced by the vicinity of the rail that I have seen the roots, stocks and gnarled stems removed from the Hill side which should have been allowed to remain in order to secure a little moisture and to afford leaves for manuring the adjoining fields. Mr. Sullivan, Sub-Collector, is at all times most ready to assist in checking wasteful cuttings, but the appointment of an Overseer in his opinion is most desireable.

The tract of wood must be extensive which will cover the charge of an Overseer's salary, and therefore in several instances, I have urged the location of two talook Peons as at the top of Palamanair Ghaut, and at Devaroydroog in Mysore, the vigilance of two men during 13 months at a cost of 7 Rupees per month has produced visible results ; although the Conservancy has hot been adequately provided for, yet the Jungle already begins to assume a much improved appearance.

My attention has been directed to other places as *Ramandroog*, the *Nulla Mulla Hills*, the *Shevaroy Hills*, the *Nellore Jungles*, and various localities in the Northern Division. I have been in correspondence with the Collectors of those Districts, but have refrained from making any recommendations of Establishments to supervise these various pieces of Forests until I had an opportunity of personally inspecting them and Judging of their requirements. I hope to visit many of these localities during the ensuing year. The great difficulty I experience is in finding suitable Overseers. The essential qualifications desired are as follows.

1st. Robust health.

2nd. Rudimentary knowledge of Forestry.

3rd. Acquaintance with Accounts.

4th. Integrity of Character.

5th. Knowledge of Native Languages.

In addition to the absolute scarcity of suitable men, the exposure and personal risk and the low salary compared with that sanctioned in the Department Public Works have united to determen from entering the Department, whilst the formation of the Police and Revenue Survey Establishments have attracted others whose services might have been available. Out of the large body of Europeans who have this year been sent out to India, I hope to find one or two who have the great essential of practical knowledge of woodcraft.

42. *Proposed Depot of Books and Tools.* It has been proposed to supply a Forester's Guide and the more necessary tools to each Overseer on his appointment (See Manual.) The Conservator, as he has leisure and opportunity, spends an hour or two with his Overseers to improve their minds, and has directed the Assistants to teach the Overseers, as Medical Officers are enjoined to train their Subordinates. By adopting a system of weekly or occasional examinations, it is to be hoped that a class of Foresters superior to the present may be obtained.

43. *System of Correspondence.* Where Overseers are located or Forest operations being carried on orders are given through the Assistant Conservator in whose range the Overseer is situated, but in any case when Forest management appears to affect the Revenue or Cultivation of the District, I immediately avail myself of the advice and counsel of the Collector, and throughout I have desired to be in the position of his adviser and not as an executive trenching upon his authority.

44. *Manual of Accounts.* A Manual of Instructions for the employes in this Department, compiled by J. T. Maclagan, Esq., under instructions of Government, including simple forms of Accounts to be used, and printed circulars for the guidance of Overseers, &c., was submitted to Government on the 6th Ultimo. At this early stage of Forest correspondence, this Manual must necessarily be imperfect, but being clear and concise I believe that it will be of great use in the preparation of contracts and simplifying accounts.

45. *Proposed Herbarium of reference.* Having received from the Royal Gardens of Kew a valuable set of named Indian Plants being duplicates issued after the publication of the Flora Indica of Hooker and Thomson, I intend to arrange these materials in a consultable Herbarium at the Presidency. It was indeed upon these conditions that I received the specimens. Such a collection is a great desideratum in the present day, when men of science frequently visit our capital, and we have not a single specimen of the collections of Roxburgh or Wight to shew, but can only refer to their description. I shall not ask Government for any pecuniary assistance except to supply paper, the cases and hereafter perhaps some manual assistance.

46. *Manual of Iudian Botany.* I have the honor to enclose a specimen copy of the Manual of Indian Botany, now being prepared in compliance with the wishes of the Honorable Court of Directors.

The small amount of time which I can spare from other avocations, the bodily fatigue and exposure I undergo, and my absence from my library for great part of the year will necessarily protract the preparation of the work, but the great opportunities I enjoy of collecting materials are eagerly laid hold of, and I trust that the Manual may when completed, be a useful guide to the Botanical riches of the Presidency.

47. The expenditure on account of the Department generally has been as follows.

	Rs.	A.	P.
Salary of the Conservator, the Assistant in charge of the office at the Presidency and the establishment	17,373	0	7
Salaries of travelling Assistants and their establishments	6,847	10	4
Contingent charges	3,868	14	4
Rupees	28,089	9	3

The income, expenditure and accounts of the Anamallay and Canara Forests from 1st July 1857 to 30th April 1858 will be submitted separately and as soon as practicable.

(Rough Survey of the Teak Forest of Goond; by M' S. Muller Assistant Conservator of Forests referred to in Para 16 is omitted.)

Revenue Department.

No. 1086.

Extract from the Minutes of Consultation under date the 5th August 1858.

Read the following letters from the Conservator of Forests.

Submitting a summary of his forest operations during the past official year. } (Here enter 1st May 1858, No. 337.)

Submitting a detailed account of the tours of the two travelling Assistants in this Department and the reasons for the appointment of a Financial Assistant at the Presidency. Also forwarding a currected duplicate of his summary of Forest operations in lieu of that dated 1st *May* 1858. } (Here enter 30th June 1858, No. 384.)

1. The first of the papers recorded above, contains the Report of the Conservator of Forests on his first tour of inspection. His general route is thus described at the outset:

"I traversed Mysore and visited the (Timber) Depôts at the mouths of nearly all the rivers "on the Malabar Coast; examining great part of the Western Ghats with a view to ascertain "the exact state of the Government Forests, their extent and capabilities. I travelled through "the most wooded portions along the crest of the Ghats from the Bombay frontier down to "Ponany, ascending and descending by the Mountain passes. I afterwards went across the "*Anaimalai* Hills, and round the slopes of the Neilgherries; I also made a circuit of the "*Wainad*; and twice visited the Conolly plantations at *Nelumbur*; being altogether 8 months "absent from the Presidency."

2. The Report has been perused by the Government with much interest. It is unnecessary to review the whole in detail; the points which require special notice are particularized below.

3. After noticing the extensive and often wanton havoc and devastation caused by the axe of the Coffee Planter and the *Kumari* Cultivator, Dr. Cleghorn states that the profuse waste has been altogether prohibited in the Mysore and Bombay Collectorates, and is checked to a great extent in Canara, "but has not altogether ceased, though the exertions of the Collector and Sub Collector have been successful in keeping under the destruction caused by vagabond tribes in

burning wood with a view to raising from the ashes a crop of inferior grain." The Government resolve to communicate this para.* to the Collector of Canara (through the Board of Revenue); and that officer will be good enough to furnish a brief report of the result of his exertions for the repression of the system of *kumari* cultivation. The conservancy system in Canara is stated to be in advance of every other District though still imperfect; a set of forest Rules are said to have been framed, which are calculated to ensure a regulated and safe expenditure, provided the subordinates do their duty. The Government will be glad to see a copy of these Rules.

* *Para.* 3.

4. Para. 5. The requirements of the various Departments have been unusually heavy, and owing to the withdrawal of the employés and materiel of the Forest Department on account of the Mutinies, the latter has scarcely been able to meet the demands made upon it, so that the operations of the past year do not afford a fair criterion of the prospective effectiveness of the Forest Department.

Indian Navy.
Madras Railway.
Bombay do.
Department P. W.
Telegraph Department.

5. Para. 6. Speaking of the marvellous changes in the face of the country as regards Tree vegetation, produced by the progress of the Railway, it is mentioned that a traveller looking from the staging Bungalow at Wâliâr, sees several "tentative lines of rail, each 200 yards broad." The Government suppose that Dr. Cleghorn refers to the first attempts at opening the line through the Palghaut gap some 2 or 3 years ago, and which Colonel Pears noticed at the time. The question of the payment of seignorage for Sleepers also referred to will be disposed of elsewhere.

6. Para. 7. The Collector of Madura will be called upon with reference to this para, to state whether he has succeeded in putting an entire stop to the devastation formerly caused on the slopes of the Pulny Hills by the formation of plantain gardens.

7. Paras. 8-9. The improved methods of I. felling, II. trimming which have been introduced are satisfactory; though Dr. Cleghorn mentions that in some places "peculiarities of tenure" have operated as an obstacle to the introduction of improvement. In what way these peculiarities of tenure operated disadvantageously should have been explained.

8. Paras. 10-12. The proposed system of operations and the measures taken to economize fragments, and pieces of timber unsuited to naval purposes are approved. The auctions described in para. 13 should be systematically held: at the end of para. 4 mention is made of the difficulties which still exist as to the supply of firewood to the large towns; if a regular supply of timber were ensured to the people by means of these sales, it would go far to prevent clandestine cutting; and judging from the result of the sale of teak held in the *Anaimalai* Forest they are likely to be a source of no inconsiderable gain, for even the fragments were greedily bought by the general trader, the Railway Department, &c.

9. Para. 13. Teak. This invaluable wood, the Conservator states, has received the special attention of the Department. There is said to be very little ripe teak (on Government land) below the Ghats, along the whole length of the Malabar Coast*, and there are only 3 localities above the Ghats where it is found in abundance and of good size, viz.

I. The *Anaimalai* Forest.

II. The *Wainad* and *Heggadevankota* Forests; partly, Dr. Cleghorn observes, in dispute between Mysore and Malabar.

III. The *Gund* Plateau in North Canara.

* *Travancore is not alluded to, as not being in the jurisdiction of the Conservancy Department.*

Sundry changes and improvements in the management of the *Anaimalai* Forests which have recently been effected are detailed; and with reference to the further development of the valuable resources of these forests, the Conservator notices that the supply of teak from the forest now rented from the *Kolangod Numbody* (Nambudri ?) will not last more than 15 years; "which is "a serious consideration as it is the only forest from which long planks suitable for a man-of-war, "can be procured"; Dr. Cleghorn has therefore conceived a scheme for consolidating the table land of the *Anaimalai* range, that belonging to Government as well as that rented, into one Government forest, to be systematically worked, and held in reserve in perpetuity for the Indian Navy. It appears probable that the forest now rented is the Janmi property of some Malabar chief, with which it is not likely that he could be induced to part, so that it is not clear how such an arrangement as the one proposed could be carried out, except by means of a money compensation. In the separate communication which the Conservator promises on the subject full particulars of the renting system should be given, and such peculiarities of forest tenure as may come under Dr. Cleghorn's notice.

10. The *Wainad* Forests adjoining Mysore are of great value, and stand second in importance. They are capable, Dr. Cleghorn roughly estimates, of supplying 2000 bandy loads or 40,000 cubic feet of teak annually, without permanently injuring the resources of the forest. But at present no means of carriage exist, by which "crooks," and other timber required for Naval purposes can be conveyed to the coast, where they would be extremely valuabe. This paragrah will be communicated to the Chief Engineer, who will after conferring with Captain Francis (who is the Government believe, well acquainted with the locality) suggest a remedy, and show what line of communication could be most easily opened to the sea, or to any river navigable from where the timber could be conveyed to it, to its mouth.

Para 14.

In the same para. Dr. Cleghorn mentions that he has experienced great difficulty in obtaining exact information as to the extent and tenure of these forests. It is not stated whether the required information was sought from the Collector of Malabar. The Government are of opinion that the authoritative determination of these tenures is an important preliminary towards the establishment of any system of conservancy in the forests, and they understand that a report on the subject is now about to be submitted to them by the Board of Revenue with especial reference to Wainad.

Para 14.

11. In the same para. of the report, Dr. Cleghorn also alludes to a subject (before noticed in the correspondence respecting the Mysore and Malabar boundary dispute) which demands immediate and careful attention. He states that the authorities at Ashtagram and Coorg, and the Commissariat officer at Hunsûr, all drew his attention to the terrible waste of Teak which occurs in the disputed tract, "the timber "being carted out in large quantities by three "roads under the plea of passes from two Devasthanams the limits of whose Inam land I have "no means of ascertaining."

From the Com. of Mysore 16th January 1858.
" *do. do. 16th February* 1858.
" *Conservator of Forest 23rd January* 1858.
" *Secretary Board of Revenue 1st April* 1858.
Extract Minutes Consultation 3rd May 1858, *No.* 564.

If these Devasthanams are in the Company's territory there would be no difficulty in prohibiting all cutting until the Dharmakarta of the Pagodas shewed title; and if this was deemed good, measures might be taken to prevent rigidly any cutting except within the limits assigned. But adverting to the scanty means of supervision in these remote regions possessed by Dr. Cleghorn, the Government doubt whether it would be found practicable to confine the felling within proper bounds; the better course would be to prohibit any such felling by the Pagoda people; and to fix an equivalent in money to the value of the timber which enquiry may shew they have a right to; if the Devasthanams are found to be within the Mysore Territory a communication of the views of Government will be made to Sir Mark Cubbon. The arrangement of the disputed boundary is now before Government. When the difficulty is solved, the Government will be prepared to consider the proposition of the Conservator as to an officer being specially appointed to that tract of country. They remark that the timber may be essentially serviceable for the Barracks and Riding School at Bangalore, and even for the Military buildings at Jackatalla.

12. Para 19. Dr. Cleghorn here states that a particular survey, and well drawu lines of demarkation between Mysore, Malabar, and Coorg, are among other desiderata, necessary for securing an uninterrupted supply of teak for the future and placing the establishment for the conservancy of this forest on a proper footing.

13. As to the suggestion following, that a European Magistrate should be permanently located in Wainad, the Government conceive that much benefit would result from such an arrangement. Independently of the fast increasing European population, which renders the presence of such an authority desirable, the residence of an European officer in regions so inaccessible and so seldom visited as Wainad, would not only enforce the observance of conservancy regulations, but keep the Government au fait as to the real wants and state of this important district; the present casual visits of the Collector are quite insufficient to do this. This question is also before the Government, for consideration.

14. Canara teak is stated generally to be of much smaller scantling than that of Malabar; the chief remaining reserve is a forest on the Gund Plateau the trees on which now well grown and ripe, are said to be conserved by their inaccessible position. Dr. Cleghorn describes it to be of primary importance that this forest should be immediately worked as it is much threatned with fine. There are two ways by which the wood may be got out, either by a rocky water course with at least 3 small falls, or by making a road of 23 miles. The

Para 15.
Para 16.

Collector, and Dr. Gibson, the Conservator of Forests under the Bombay Government, incline to the latter course, whilst Colonel Arthur Cotton and Lieutenant Taylor, I. N. recommend that the rocks in the water course should be blasted. Dr. Cleghorn submits a map of the Forest surveyed by his Assistant Mr. Muller, in which the roads necessary for the working of the Forest are suggested. And he proposes that an Engineer Officer be deputed to visit the locality and report on the best mode of getting out the wood; Captain Walker of the Engineers, shortly expected from England, being one of the few Europeans who have visited the spot, and who has a knowledge of its requirements, might the Conservator thinks be directed to make an examination. The Government are fully alive to the importance of this Gund Forest, and as Captain Taylor of the Indian Navy is now surveying the Kala Nuddee near Sedashegur, that officer will be requested to afford the Government any information as to the accessibility of these Forests that it may be in his power to give.

15. With reference to Doctor Cleghorn's request that 100 Copies of the Map of the Forest now laid before Government should be struck off, it is observed that 200 copies of the Report have been asked for; these and a similar number of the maps will be printed and lithographed at once.

16. *Teak plantations,* p. 17 seqq. *Colonel Gilbert's* plantations commenced in 1804, are generally failures, owing to the injudicious selection of site too near the sea. The Conolly plantations, on the other hand, are in a very promising condition; and the Government recognise the very great importance of restoring the ancient and valuable forests of Malabar and will be glad to receive the report preparing by Doctor Cleghorn. The Conservator proposes to depute two of his subordinates to introduce the planting system in vogue there, into the *Anaimalai* Forests, and North Canara.

17. Para. 19. Will be communicated to the D. P. W. with a request that the Chief Engineer will impress upon his subordinates the necessity of care in selection of Timber for Government works. The wood (Poon spars) which Doctor Cleghorn saw used for the construction of a small bridge, it is most important to preserve for naval purposes.

18. *Sandal wood.*—The spontaneous growth of the Sandal tree has increased, it is stated, to a considerable extent in Mysore, Canara, Coimbatore, Salem, and a little in North Arcot, and the Conservator thinks that if the supervision of local officers is vigilant and slight assistance be given to nature in clearing the heads of the young plants which are often matted down by strong creepers an addition might accrue to the revenue of these provinces.

19. *Introduction of saw Machinary.*—Para 28. The Government concur with the Conservator as to the propriety of deferring the introduction of Saw Machinery to the little frequented forests. This expensive plant can only be desirable when operations are to be conducted for a length of time on a large scale at the same place. At the Depots the Saw Machinery might advantageously be introduced, the timber being conveyed thither entire; meanwhile every endeavour should be made to abolish the use of the Axe.

20. Para. 30. Will be communicated to the Chief Engineer, with a request that he will direct his subordinates to follow the course suggested.

21. Para. 33. The principle here laid down is fair and highly proper, and Collectors should give their aid in securing its observance.

22. Para. 34. The Government fully concur in Dr. Cleghorn's views as enunciated in this paragraph; which may be stated in a few words to be that while it is desirable to give every encouragement to the extension of Coffee cultivation, the destruction of timber must be prevented by restricting grants of coffee land to places where the shrub can be grown with advantage; and at the same time the denudation of the higher ridges and slopes of hills; which if allowed may result in a serious diminution of the rain fall, should be absolutely prohibited; while those intending to accupy land containing fine timber should be compelled to take the land without the timber, or take the latter at a valuation.

The Government are aware that the (late) Collector of Coimbatore, Mr. Thomas, was fully alive to the importance of the principles laid down; but they desire that the Board of Revenue will communicate to the present Acting Collector their wish that the view expressed in the letter quoted should be adhered to in every way.

23. With reference to para. 35 the Government notice with much interest the successful attempt by a private individual to introduce the Tea plant. Dr. Cleghorn will be good enough to keep them informed of the progress of an experiment so creditable to Mr. Mann.

Para. 36 The Government would be glad to see the General instructions issued by the Conservator, when he next reports progress.

24. Para. 40. The Government will be prepared to take into consideration the Establishment of Depots, when the Conservator lays a definite scheme before them.

25. Para. 41. The Conservator here represents the difficulty of procuring suitable Overseers. And he shews the causes which combine to prevent qualified persons from entering the Department. If on further experience, these causes are still found to operate detrimentally to the interest of the Establishment, it will be Dr. Cleghorn's duty to propose a remedy in the shape of a higher scale of remuneration.

26. Para. 44. The manual of accounts alluded to, has already been approved in Ex. Min. Con. 21st May 1858, No. 669, and 200 Copies (as amended according to the Conservator's Official Memorandum without date received July 2, 1858, No. 381,) will be struck off for the use of the Conservancy Department, &c.

27. Para. 46. The Botanical Manual under preparation in accordance with the wishes of the Honorable Court of Directors, will doubttless be a most useful production. The Government would wish some uniform system to be adopted in the representation of Native terms in the Roman character.

28. The account of the disbursements of the Department in the last para. of the Report should have been placed side by side with one of the receipts.

29. The present Report as well as Dr. Cleghorn's 2nd letter submitting a detailed account of the tours of his two travelling Assistants will be submitted to the Honorable Court of Directors with a copy of the foregoing rmarks

(A true Extract.)

(Signed) T. PYCROFT,
Chief Secretary.

No. 1239. Madura 6th December 1858

To The Ag, Sub Collector Dindigul.

Sir,

With reference to the Boards Circular of the 19th August last No. 3162, and to Mr Hathaways letter of the 28th October last I have the honor to forward a printed copy of Dr. Cleghorns report and Ex. Min-Con; of Government No. 1086, dated 5th August 1858* and request that you will be so good as to inform me with reference to para 6 whether the devastation formerly caused on the slopes of the Pulney Hills by the formation of Plantain Gardens has been put a stop to and with what effect.

* Received with the Boards Circular 19th August 1858. No. 3162.

I have also to draw your attention to paras 21 and 22 and to request that you will favor me with a copy of any rules you have issued and the means adopted by you to prevent the cutting of forests for coffee clearings also whther the principle laid down in parah 33 of Mr. Cleghorn's report can be carried out in the Division under your charge.

No. 271. Madura 13th December 1858.

To The Secretary to the Board of Revenue Fort Saint George.

With reference to the Boards Proceedings of the 19th August 1858 No. 3162. I have the honor to report that measures have been taken by the Sub Collector which though they have not wholly succeded in putting a stop to the felling of trees on the slopes of the Pulneys have greatly checked the devastation formerly caused, but as special establishment is maintarmed for this object it is found almost impracticable in so vast a tract of hill Country to carry out strictly these orders. Parties when proved to have transgressed the orders are dealt with according to the Regulations and are punished for trespass. For persons desirous of cutting trees for house purpose or for sale licenses are issued by the Sub Collector after personal enqury and no parties are allowed to carry away wood without such licence.

No. 139.

Madura 30th September 1859
Despatched 14th October.

From

Arthur P. Hodgson Esquire, Sub Collector,

To

Thomas Clarke Esquire, Collector of Madura.

Sir,

In reply to your letter under date 20th of December 1858 forwarding copy of the Rules in force in the Tinnevelly District regarding the cutting of Timber and Wood and requesting to be informed whether those rules can advantageously be incorporated with the rules existing in the Sub Division, I have the honor to inform you that I am of opinion that the absence of any

forest establishment will render the adoption of the rules in question quite impracticable. I have collated the rules which existed in separate orders issued by me as occasion required, but there is an addition I would propose to make to them in regard to the taxing of wood.

2. A Fund is required for collecting timber lying cut about the forests, and transporting it to the nearest village or place appointed as a depot. The only fund at present available is the proceed of the licenses and Rahdarees, but the sum derivable therefrom is wholly inadequate for the purpose. I would, therefore, propose the levy of a certain sum on each cart load of wood cut on a license.

3. I would fix the rates as follows.—

Ebony, Blackwood and Teak............	3 Rs.	per Cart load.
Other description of wood....................	2 Rs.	do
Bamboos..	1 R.	do

4. Licenses are now charged 1 anna each and Rahdarees ½ anna. I would raise the rates in the case of the former to 4 annas and the latter to 2 annas.

5. These sums are very moderate considering the price of the wood for which they are charged, and as none but those in good circumstances require wood for building purposes, the imposition of an increased payment on Licenses and Rahdarees will not act as a hardship, especially when the moderate charge for the timber is taken in consideration.

6. If you approve of these rates I will empody them in the rules already in force.

7. Although the Conservator of Forests Dr. Cleghorn purposes to apply to Government for a forest estabilshment for this District, yet sometime may elapse before such is organized, and brought into proper working order, and it is with a veiw to preserve the forests in the meantime that I propose taxing wood in the manner above detailed.

I have the honor to be
Sir,
Your Most obedient Servant.
ARTHUR P. HODGSON,
Sub Collector.

RULES FOR OBTAINING WOOD IN THE DISTRICT OF MADURA.

No trees are to be cut down on Government land, on the Hills or plains in the Sub Division, without the Sub Collector's permission.

2. No forest or waste, on which there are trees, is to be taken up or cleared without order.

3. Poonakadu cultivation on the slopes of the Hills must not be extended, nor old lands of this description taken up without the permission of the Sub Collector.

4. Persons requiring wood from the Government forests in the Sub Division must make an application to the Sub Collector in a prescribed form obtainable at the Cutcherry, upon which a license will be issued giving permission to cut the wood required, and specifying the place from which it is to be odtained, and prescribing a limit as to time,

5. The license must be taken, and delivered to the Zillahdar of the Mittah in which the forest from which the wood is to be cut is situate. If the wood is not cut and taken away within the time allowed, a fresh license will be required to cut or remove it.

6. This officer on the receipt of the license will issue an order to the Nattamgar or Mettoo peon of the place where the wood is to be cut, and return the license to the applicant.

7. The license must be delivered up to the Zilladar at the expiration of the time for which it is granted.

8. Within the time mentioned in the license the wood must be carried away from the forests and shewn to the Zillahdar who will give a separate Rahdaree each time wood is thus taken away.

9. The Rahdaree will shew the number of the license, the name of the person to whom it is granted, the quantity of wood it covers, the place from which it is conveyed and the place to which it is taken &c.

10. The Person to whom the Rahdaree is given must, on arrival at the place where the wood is to be deposited, report to the Head of the Village, or other superior officer, or, in the case of a Town, to the Cutwal or other person deputed for the purpose. He must permit the wood to be examined by such Officer, and deliver up the Rahdaree to him.

11. When wood is exported the Rahdaree is to be delivered to the officer of the village on the frontier who will issue another in its stead.

12. If, either on its passage or on its arrival at the place of deposit, the wood is found to be in quantity greater than stated in the license, the Officer making the dsicovery will report the matter to the Sub Collector and detain the wood.

13 Zemindars are required to issue licenses and Rahdarees in the manner appointed above, and to forward every quarter to the Hoozoor a Register of license and Rahdarees issued by them.

14. No sapplings are permitted to be cut down under any pretence whatever, Trees of the largest growth are to be selected.

15. 1 Anna will be paid on the issue of each license. Half an anna on the issue of each Rahdaree.

16. Licenses are to be returned to the Hoozoor Cutcherry as soon as received by the Zilladars.

17. Rahdarees are to be sent to the Hoozoor by the officers to whom they are delivered.

18. Permission will not be granted to cut Teak, Ebony and blackwood excepting under special circumstances.

19. Ryots will be allowed to cut fire-wood and wood for their ploughs without permission, but no valuable trees are to be cut for those purposes.

20. Ryots will be permitted to cut wood for bandy poles, Yokes, Picottahs, pestles, mortors, small sugar mills and for ordinary thatched huts without a license, but they must previously obtain permission from the Zilladar who will on their application issue an order in the form of a lecense.

21. Zilladars are empowered to charge half an anna for each such order, and, in case the wood is not cut in the time allowed, the Zillahdar is to receive back the order, and issue a fresh one, for which, and subsequent orders issued under like circumstances, half an anna will be levied each time.

22. The Zilladar is to register each application, and forward a copy of the register to the Hoozoor every month.

23, Ryots belonging to one Mittah requiring wood from the limits of another for the purposes detailed in para 20, must apply to the Zilladar of the Mittah in which they reside, who, after having satisfied himself that the wood is actually required by the applicant, will give him an endorsement to that effect, which must be shown to the Zilladar of the Mittah in which the trees to be cut are situated, who will proceed in regard to the application in the manner directed in the same para viz. 20.

24. Rahdarees must be obtained to convey wood from one village to another.

25. Permission to cut and take bamboos from the jungles of the Sub Division will be regulated in the manner above mentioned in regard to trees.

26. Persons cutting or removing wood from the forests in the Sub Division contrary to these rules, will subject themselves to punishment for trespass, theft, or a misdemeanor as the case may be.

27. The present state of the Forests, and the limited means of supervision render it necessary that permission for cutting wood be granted for the requirements of the people of this District only and therefore until the forest Establishment now under contemplation be established, no licenses will be granted to cut wood for exportation.

28. The same rule will apply to the cutting of bamboos.

ARTHUR P. HODGON,
Sub Collector.

No. 843.

From H. Cleghorn Esq. M. D.
Conservator of Forest.

To Thomas Clark Esq.
Collector of Madura.

Sir,

I have the honor to forward for your perusal, copies* of a Report on the Timber resources of Madura by Mr. Carr, Chief Engineer of the Govt. South of India Railway company and of a letter from Mr. Maclagan the Agent to the Home Board of that Company.

* To be returned

2. The main point for present consideration is the proposal to work the Government Forest in the Cumbum Valley.

3. After much reflection, it seems to me unobjectionable that these parties being thoroughly trustworthy should be permitted to work the Forests in question in furtherance of a great scheme of public utility, and I think you agred with me on this point.

4. It will be necessary, however, to appoint a good Overseer to mark off the trees to be felled for Railway purposes, and at the same time to pay due regard to the wants of your District.

5. I am now looking about for a suitable person, and anticipate some difficulty in finding one. I should feel much obliged if you can recommend a fit man.

P. S. I take this opportiunity of sending one of the forms of License used in the Salem District.

Utakammand
9th November 1859.

I have the honor to be
Sir.
your most obedient Servant.
H. CLEGHORN.

Great Southern of India Railway Chief Engineer's Office
Negapatam 1st October 1859.

Dear Sir.

1. Urged by the difficulties which have beset our efforts to procure Timber, I agreed with you, that we should avail ourselves of the opportunity of accompayning Dr, Cleghorn the (Conservator Forests) on his tour through the more wooded parts of the Coimbatore and Madura Districts in the hope that we should hereby gain much valuable information as to the capabilities of those Districts to supply sleepers and Teak for the Railway.

2. Although you were yourself one of the Exploring party thro ugh the greater part of the tour, which I have just completed, I think it well to give you a digest of the information obtained on the whole tour, with a view to its being laid before the Directors. In doing this, I shall also add my views as to the manner in which the information may best be made available in the interest of the company.

* * * *

3. WALLIAR AND PAULGHAUT.

Excellent Sleepers of Vengay, Vellanaga, Maradha, and Kurrah Maradha, are obtained from the Walliar and other jungles adjoining the Madras Railw ay, at a cost of about 1 Rupee each delivered on the Railway, at the nearest point. From t he escheated Forest of cheunat Nair 7 Miles north of Paulghaut, similar supplies could probably be procured, but the state of the weather while we were at Paulghat having made it impossible for us to visit the Forest, nothing definate can be said on this point. These sources of supply are too remote at present. But when the Madras Railway is open from Paulghat to Salem it will probably be serviceable for the contemplated extension of Erode. The present price of Teak at Paulghat delivered at the Railway Work shop is, according to Mr. Ross, resident Engineer, Rs. 1—6—5 per Cubic foot in unsquared logs. There is a continual demand here for ship building &c. on the Western Coast, and when access is given to additional markets by the opening of the Madras line, we may expect the value of the Teak here, will be enhanced. I apprehend therefore we must look to other quarters for our supplies of this wood.

4. THE ANNAMALLAY.

Here the Teak is considered by many to be the finest in Southern India, and is worked by an Establishment under the direction of the Conservator of Forests. The longest scantling has been for some years supplied chiefly to the Indian Navy. The price obtained for this quality of Teak is about Rupees 2 per cubic foot on leaving the Forest. Sound logs of the best quality but not long enough to come under the class superior (28 feet) are sold at about Rs. ¼ per cubic foot. It is customary to dispose of the Butts, slabs, side pieces and rejected planks by auction: and on the last occasion the average price obtained was about 10 or 12 annas per cubic foot, some of it, suited for many of our purposes was sold for 6 annas. The next auction takes place here, in December. The cost of coinage to Trichinopoly is at present somewhat uncertain It may be that we can float it down the Ambarawathe to caroor, & so by the cavnery to Trichinopoly, but this has to be determined. If this practicable, the cost of transport including about 42 miles land carriage, will probably not be more than say 6 annas per cubic foot. The usual route hitherto, however, has been by Vaugal (about 90 miles land carriage) and thence to Trichinopoly by Cauvary; by this Route, I estimate the cost will be about 9 annas. The only source of supply of Teak for our present wants at Trichinopoly is our own store at Negapatam, and the cost of Teak from our store delivered at Trichinopoly would not be less than 1-14-,, Moreover the stock is limited and cannot I fear be renewed at the same price. It will be desirable therefore to draw the Trichinopoly supplies from some other place, even at a slight advance of price I recommend that some one should attend the next auction at annamallay witha view to perchase Teak for the company. For small Teak suitable to many of our purposes a maximum price of say Rupee 1 per cubic foot mignt be given and for larger pieces of good quality as much as Rupees 1-6-,,

Seven logs purchased for us at Madras at Rs. 55 per ton had to be left behind the "affiance" being unable to bring them. They have since been sold on our account at Rs. 63 per ton. From the minutes of store committee it will be seen that all the tenders have been at rates Exceeding Rs. 77 which will be about the cost of "affiance" cargo

For sleeper trees (standing) we have mere suitable markets, and therefore I need not go into the question here, but there are about 40 seasoned logs of Vengay and Vella Naga to be sold at the coming auction, which it would be desirable for as to purchase, if to be had at a maximum price of, say 7 annas per cubic foot.

5. POLACH.

Here we were offered sleepers of the sanctioned woods grown on Zemindary land at 1¼ Rupees each and two contractors offered to under take the carriage to Caroor for 1 Rupee. These offers were made by men who are at present supplying the Madras line at Erode on the same terms. This is a source not to be lost sight of, in our future operations, though at present we have better prospects in view.

6 THE SOURCES OF THE RIVER AMBRAVATHY.

On crossing this river at Muddoo Tookolem we were informed by the Taluq Daffadar, that wood of various kinds has been cut near the source of the Ambravatty and floated to Caroor. This information was confirmed by a subordinate of the Department Public Works, employed at the Bridge in course of erection there, who showed us a Register he had kept of the depth of water in the River from which we gathered that 10 feet rafts may be floated to Trichinopoly in July August and September, the depth of water varying from 3 to 5 feet in those months. This Officer also informed us that there are floaters living in the Village, that there is no obstruction towards Caroor when the river is full, and that there are 50 or 60 Mulcers, accustomed to cutting Timber and preparing rafts living at Talungee, 2 Miles higher up. This though untried, looks hopeful, and it now remains to ascertain the nature and extent of the Forests at the source of ths River. To this end Dr. Clegharn proposes to depute his Assistant Lieutenant Beddome to examine the Forests there and report.

The Tahsildar at Caroor told me there were 22 Anic uts (dams) on the river Ambravatty above that Station, It is quite possible however, that when the river is full, 10 feet rafts might be taken clear over these or at the most, might have to be taken to pieces & reunited on the Lower side. Furthe renquiries on this point will be instituted.
(Intled.) J. T. M.

Since writing the above, the District Engineer has thrown some doubt on the practicability of floating, down the Ambrawatty, and it would therefore be necessary to test this, before making any considerable arrangement to avail ourselves of that river,

7. The Eastern Pulneys,—These are the nearest Forests to our line where Teak is found; but they have been much denuded, and its is very doubtful whether any supply worth naming either of Teak or sleeper wood, can be obtained there.

8. The Cumbom Valley.—Rumour held out great promisses to us as to the capablities of this valley. It would have occupied too much time to have explored all its promissing Ravines but placing ourselves under the direction of Mr. Clarke the Collector of Madura, who from his own personal knowledge of the locality, and information he had obtained, rendered us great service in exploring this District, we encamped 7 Mills S. W. of Cumbom, and on the following morning proceeded about 4 miles into the Forest, towards the point where the boundaries of Travancore, Tinnivelly and Madura meet. We saw many trees which had been felled for two to three years, more or less accessible, Of felled Timber, we saw Teak, Viti and some other woods suitable for sleepers. Of standing trees we saw about 12 or 15 good Teak and an abundance of Vella Nagha, Maradha, Poolichi (schlerchera tryuga) some fine Vengais, and a good deal of Vitti (Dolberlgia latifolio). The forest was full of long grass, so that we could not see the felled Timbers, except those which were close by the path. The Subordinate Government Officers of the District assured us that there are a great number of such trees which had been felled before a stop was suddenly put to the indiscriminate felling of timber in the Government woods here, about 2 or 3 years ago. At several points in this valley there is promise of Teak and other Timber already seasoned.

9. Although the result of personal examination here has fallen far short of the promises held out, yet after a careful consideration of the subject, it appears to me that this is one of our most promising sources of supply for Teak and for a large portion of the Timber required for all purposes by our Railway, in the District of Trichinopoly and Madura. The advantage of there being seasoned Timber, in the Forest to commence with, is important to us.

10. The Forests belonging to Government in the Cumbum valley and on the Pulneys are not at present being worked, Government having no Establishment to work them. Dr. Cleghorn thinks it probable an Establishment might be granted for the purpose; provided the Railway Company gave an undertaking that they would purchase large quantities of timber but after much discussion, I have arrived at the conclusion. it would be more advantageous to the Company, to work the Forests themselves, having their own Establishment, and paying the Goverenment a Seigniorage for the timber. In this way they would be more certain of its being worked in accordance with their requirements. The Madras Railway Company are doing this near Paulghaut with great advantage to themselves, and the seigniorage in their case is, I understand for all woods except Teak, Rupees 1 per tree. Taking the average yeild of the trees at 8 sleepers the first cost of each sleeper, would be only 2 annas. I am assured that similar or possibly some what easier terms would be accorded as; and in this case, I would recommend that an Establishment be organized for the purpose and that as little delay as possible intervene until we are cutting trees to season in the Forest, and collecting the seasoned timber into Depot. I think it would be well, if this could be started under an Engineer who had experience in working Indian Forests. When thoroughly organized and put into good working order the Establishment might be left under the charge of a man at, say, Rs 200. or 250 a month.

11. We cannot of course estimate with any pretence to accuracy the expense of bringing the trees into Depot, as that must depend on the condition of the Forest and the site of the

Depot, but the Forests are favorably situated for the work, and we ascertained that there is no want of Wood Cutters, that Cooly labour is plentiful, much more so than in the Aunamallays, that the present cost of Cooly labour is 2 annas, and that we can certainly obtain it for 2¼ annas per head as against 4 annas in the Aunamallays, that cart hire at present is 1 anna per mile and that we may safely reckon on procuring it at 1½ annas; and the roads are good.

12. I attach importance to the working of these Forests, 1st because I believe they will yeild as good and cheap sleepers for the present line near Trichinopoly; 2nd because we shall by their means be more independent of other sources of supply, and be therefore less liable to be delayed from want of sleepers; 3rd because from no other source have we promise of Teak for Trichinopoly District; or any thing like such favourable terms; & 4th because we shall then be in possession of unquestionably the best supply of sleepers for a large portion of the extension line in the neighbourhood of Dindigul, and will be in a position to commense cutting sleepers on a large scale for that line the moment it is sanctioned. With an Establishment in the Cumbum Valley, to work the Government Forests there, we should be in a most favorable position for getting any thing the Eastern Pulneys may have to offer us, and also for purchasing from the neighbouring Zemindaries, where I am informed there are considerable quantities of Teak and other woods for sale.

13. The results of our tour there are :—

1st. That I recommend the company should organize an Fstablishment to work the Forests in the Cumbum Valley, and that I believe we may look to that as an Economic source of supply of Teak and other timber, to meet the bulk of our requirements in the neighbourhood of Trichinopoly and Madura hereafter.

* * * *

3rd. That the Ambrawaty and Polachy gives us promise of sleepers on easy terms, in support of the supplies to be had from the Cumbum Valley.

4th. That Paulghaut promises good and cheap sleepers for the Erode Extention hereafter.

14. Before concluding these remarks it may perhaps be as well to observe that the Cumbum Valley is a highly fertile and very productive plain, and that the great bulk of its produce, Cotton, Oilseeds, and grain passes out by the course of the River Viga towards Tinnevelly, whither as I understand it mostly goes. The Tuticorin Extension of our line, as proposed. Via Dindigul, would pass the entrance to the Valley very close to this Road, and would be tolerably certain of taking up the Traffic.

I am &c.

(Signed) MARK W. CARR,
Chief Engineer.

To J. T. MACLAGAN Esq.,
Agent.

(True Copy)
(Signed) J. T. MACLAGAN,
Acting Agent.

Agents Office
Negapatam
15th October 1859.

Great Southern of India Railway Agent's Office,
8th October 1859.

No. 18
Dear Sir,

I have now the pleasure to enclose copy of the letter that has been addresed to me by Mr Carr, giving the results of our late tour in company with Dr. Cleghorn, Conservator of Forests. It is unnecessary for me to enter into any details, beyond what are contained in Mr. Carr,s report.

The most important question, and one to which I would request the special and early attention of the Board, is the proposal to work the Government Forests in the Cumbum valley, by an Establishment of our own I entirely concur with Mr. Carr in his recommendation for the forming of such an Establisnment, that we may as soon as possible commence collecting the timber already cut, and felling what may be required for Trichinopoly and its neighbourhood. The teak already purchased in Madras should as far as possible be reserved for the Work Shops at this terminus, and for the requirements of the line towards this end. Part of it must be used for Telegraph posts, though we shall effect some considerable saving in this item by a recent purchase of Ironwood, Trincomallee wood, and Satin wood, to the extent altogether of 120 tons which will be delivered here at Rupees 50 per ton. There will still however be sufficient use towards this end of the line for what remains, and it is highly important and desirable that Trichinopoly should look elsewhere for a supply.

In my letter of 20th July No. 11, I referred to the possibility of working the Cheunat Nair Forest. This I now find to be unadvisable for the present, and its advantages are far surpassed by those of the Cumbum Valley, which at present are entirely unworked should I find from your reply to that letter that the Board were willing to entertain a proposal of the kind, I should take the necessary steps for working the Cumbum Forest, without waiting for further instructions.

The next question in point of importance is the supply of part of our immediate wants from the next annual sale at the Annamullay I believe this takes place about the middle of December, and it will not be possible to wait for instructions from the Board, I shall therefore in conformity with Mr. Carr's suggestion propose to the stores committee the purchase of the forty logs of Vella Naja, and Vengay and of such of the Teak stabs, butts, &c. as the Engineering Department may require. We shall thus also obtain positive experience as to the possibility of floating down the Ambravatty, and the total cost of conveying by land and water to Trichinopoly.

The other sources of supply Polachy, the Eastern Pulney's, the Walliar, and Paulghaut Jungles, do not require immediate attention. They will however be kept in view for future operations.

I am &c. &c

(Signed) J. T. MACLAGAN,
Agent.

ROBERT R NOTMAN Esq.,
Manager and Secretary
Great Southern of India Railway.

(True Copy)
(Signed) J. T. MACLAGAN,
Agent.

Agents Office
Negapatam
15th October 1859.

No. 1,960.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 21st April 1860.

Read Proceedings of the Madras Government, dated 4th April 1860, No. 517, forwarding copies of the Minute by the Honorable the President relating to his late Official tour in the South of India. Calling the Board's attention to the observations contained in the paragraph noted with a view to the necessary steps being taken for giving effect to the views therein set forth.

* * * *

3. The Collector of Madura will report on paragrph 6 of the Order of Government.

4. The Collectors of Madura, Salem and Coimbatore will report fully on paragraph 7 of the Order of Government. They will mention the size they would recommend for allotments and the facilities they posses for working out a sufficient number at once.

* * *

(A true Extract)

(Signed) J. D. SIM,
Secretary.

Page 290 of 1860.
28th July 1860.

"NOTICE"

SALE OF TIMBER TREES.

1. To all Ryots, Merchants, Bazaar men, Government Servants &c, Forest trees yielding timber will be sold at the following rates.

Full grown Teak, Thothaguttee, Vengay and Ainee at 5 Rupees per standing tree.

All other kinds such as Yetti, Pulichi, Kusturi, Perambay, Kar Vengay, Maruthu, Vavala, Kadukai, Sauly, Nava, Thanee. Cungiliam, Kumooloo, Poombathri, Manjakadumbay, Neerkadambai, Malaivayambu, Valka Vekalie, Vel Vangay at 2 Rupees per standing tree.

2. To bonafide ryots the following timber for agricultural implements will be allowed free of charge only on obtaining permission

Odasauly
Sauly
Manjanathi
Vulka
Yetti

Ossil or other soft or stunted trees. The size and number of these trees to be determined upon according to circumstances

3. Those wishing to purchase timber to a large amount can do so at the annual sales which will be fully advertised.

4 All applications for timber to be made to the Forest Overseer.

(Signed) V. H. LEVINGE,
Collector.

"NOTICE."

The following addition is made to the notification of 28th July in Page 350 of the District Gazette dated 1st September 1860.

1. "Such of the first mentioned trees as are clipped, hollow or stunted will be sold at 2 or 1½Rs. each, and those of the last mentioned kinds if found in similar condition will be sold at 1 or ½ Rs. each."

(Signed) V. H. LEVINGE,
Collector.

CIRCULAR.

No. 4,000.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 1st September 1860.

Read Proceedings of the Madras Government, dated 24th August 1860, No. 1,425, Revenue Department, communicating to the Board, copy of a Report from the Conservator of Forests on the Tea plants seen in different Districts of the Presidency, and observing that it contains much useful information on the subject.

(In Cons., 27th August 1860, No. 4,228.)
Circulated to all Collectors.
(A true Extract)

(Signed) J. D. SIM,
Secretary.

(True Copy.)

(Signed) W. GRANT,
Acting 1st Assistant.

REVENUE DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following letter from H. CLEGHORN, Esq., M. D, Conservator of Forests, to J. D. BOURDILLON, Esq., Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 11th August 1860, No. 96 :—

SIR,

1. With reference to the Order of Government, dated 9th November 1859, No 1,531, Revenue Department and Proceedings of Government, dated 25th July 1860, No 30, Revenue Department, I beg to state that I have found it impossible, owing to my other engagements, to visit the Tea plantations at Caldoorty and Udagiri mentioned by General Cullen, in his letter to the Chief Secretary, dated 27th October 1859.

2. I regret this, as the vegetation of that part of the Travancore territory is most luxuriant, and the lofty ranges stretching towards the Pulnies have been less explored than any other part of the Malabar Ghâts.

3. I have collected from my journel a few notes made during my tours upon the Tea plants seen in different Districts of the Presidency.

* * * *

VI. PULNI HILLS.—Major Hamilton reported that a considerable number of Tea plants at Kudaikanal, were an inch or two above ground and appeared fresh and healthy.

7,100 *feet*

* * * *

ORDER THEREON, 24th August 1860, No. 1,425.

1. The Governor in Council has perused this report with much interest. It contains much useful information on the subject treated of. It will be communicated to the Board of Ruvenue, to the Collector of Coimbatore, to the Commissioner of Mysore, and to the Literary Society for publication in their journal. A copy will also be laid on the Editors' table and a number of spare copies will be printed for sale or distribution.

2. The report will also be sent to the Secretary of State.

(True Extract.)

(Signed) J. D BOURDILLON,
Secretary to Government.

REVENUE DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following Proceedings of the Board of Revenue, dated 23rd August 1860, No. 3,856:—
Read the following letter from V. H. LEVINGE, Esq., Collector of Madura. to J. D SIM, Esq., Secretary to the Board of Revenue, Fort Saint George, dated 3rd August 1866 No. 147 :—

SIR,

1. With reference to the Proceedings of the Board of Revenue, No. 1,960 dated the 21st April 1860, directing me to report on paragraph 6 of the Order of Government dated 4th April 1860, No. 517, I have the honor to report that up to the year 1852 all persons were at liberty to cut wood of all sorts at their pleasure without payment of any tax or fee in all the Government

jungles in the District; the consequence was that the jungles were being destroyed and completely denuded of all valuable wood, and it became almost impossible to procure hard wood of any size for Government or other purposes.

2. To conserve the forests, orders were issued prohibiting the cutting of any timber without previously receiving a license to cut from the Revenue authorities.

3. No difficulty was ever made about giving the license; it could always be obtained by asking, and this asking was the only hardship really to be complained of; what the carpenters and others ask for, is really permission to cut wood, for the purpose of making a trade in it, for building, &c., purposes with Trichinopoly, Tanjore and Districts not having forests.

4. Persons can cut wood, whether valuable or not, without any interference by the Revenue authorities on their own lands, and do so also in the thorn jungle-waste in the low country and low hills covered with scrub.

5. In the principle division there are no valuable jungles, the hills about Nattom are covered with small valueless trees, used for roofing small thatched houses; liberty to cut these is freely granted, but in consequence of their being no Conservancy Department there, the rule is evaded and the people cut as much as they want.

6. There is no restriction on cutting firewood in either the principal or sub-division.

7. The only valuable forests are situated in the Cumbam valley and upon and round the sides of the Pulney hills; these jungles are now in charge of the Forest Conservancy Department. A copy of the rules lately issued for cutting trees in those jungles, and the rates to be paid, are herewith sent for the information of the Board.

8. It is but fair that carpenters and wood merchants should pay for the trees they wish to cut for their own profit, and such is the only means, since the discontinuance of the renting of the hill produce, such as honey wax, &c., that the Government has of deriving any revenue from the forest tracts, or for paying the Forest Department, and it is a just source of taxation.

9. The Rani of Ramnad rents out the large thorn jungle-tracts in that Zamindari, and all the Zemindars in the District, who have valuable forests, levy a tax on all wood cut in their jungles, and generally on all jungle produce such as gums, dammer, honey wax, &c.

In Cons., 20th April 1860, *No.* 1,792.

1. Submitted to Government with reference to paragraph 6 of their Order dated 4th April 1860, No. 517, Revenue Department.

2. The Board do not see the advantage of Licenses, if given gratuitously on simple application, and would abandon that part of the local system as useless for conservancy purposes, and likely to be made the means of exaction.

3. The rule in force in other Districts of allowing villagers to cut what wood they themselves require for fuel and other domestic purposes, without charge, in ordinary jungles, not under special conservancy, and of charging seignorage on wood cut by others, or by villagers for sale, might be advantageously followed in Madura, wherever the jungles contain no timber of value. In the Cumbam valley, Pulneys and elsewhere, in valuable forests and jungles the Conservancy Department should enforce their own rules.

4. A copy of the above letter will be forwarded to the Conservator of Forests, with a request that he will adapt the general rules in force in other Districts to the peculiar requirements of Madura, and favor the Board with his opinion on the utility of Licenses.

5. The Collector's letter shows that, except in the matter of Licenses and the restriction on felling timber in the large forests, the people of Madura have no real cause of complaint. The latter restriction seems to the Board to be just and necessary, and the Licenses, as already stated, they would dispense with, unless the Conservator of Forests has special reasons for requiring them.

(A true Copy and Extract.)

(Signed) J. D. SIM,
Secretary.

ORDER THEREON, 7th September 1860, No. 1,544.

The Government will await a further Report to be made by the Board after receiving and considering Dr. Cleghorn's opinion.

(True Extract.)

(Signed) J. D. BOURDILLON,
Secretary to Government.

No. 4153.

Communicated to the Collector of Madura

By Order
(Signed) J. D. SIM
Secretary.

Revenue Board Office
Fort Saint George
12th Sepr. 1860.

No. 4,235.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 18th September 1860.

Read the following letter from V. H. LEVINGE, Esq. Collector of Madura, to J. D. SIM, Esq., Secretary to the Board of Revenue, Fort Saint George, dated 8th September 1860, No. 186 :—

1. I have the honor to report for the information of the Board of Revenue, that I have had a consultation with the Forest Superintendent in the District who has now visited all these Forests; we have come to the conclusion that the only Forests worth conserving are,

1st. The Karanda-malai jungles. The Karanda-malais are a block of hills lying to the west and north of Nattam overgrown with jungle, yielding some valuable kinds of wood which is now cut and carried off by traders to Trichinopoly and Tanjore.

2nd. The north slope of the Palani range from the Palani limits, on the west to the eastern boundary of the Virupatchy hills, adjoining the western boundary of the Kannivadi hills. The east slope of the Palani range belongs to the Zemindar of Kannivadi.

3rd. The southern slope of the Palani range lying between the Kannivadi and Bodinayakanur Zemindar's limits.

4th. The southern end of the Kambam valley.

5th. The jungles on the top of the Palani hills, both upper and lower ranges.

2. The northern slope of the Sirumalai hills might also perhaps be conserved, but they have not yet been inspected, and it is not expected that they will be found to contain any valuable or large timber.

3. All the other jungles in the District contain nothing but stunted trees only fit for firewood and for making small posts and rafters for building small houses. The wood in these jungles is not worth preserving, nor would it be worth while to entertain an establishment to levy duty on the wood cut in them.

4. Before the arrival of Mr. Sperschneider, no revenue whatever was derived from the forests.

5. In the first month of his conservancy, July, Rupees 102-8-0 were collected, and in the month of August, Rupees 237-0-0, total Rupees 339-8-0. For the present I have carried this sum to the head of deposit.

6. As Mr. Sperschneider has not been allowed any establishment I have been obliged to allow him the services of four Taluq Peons, with whose assistance he has been able to collect the above sum. On the introduction of the new Police it will be necessary to give him an establishment of his own, as I shall have no Peons to spare him, & I have no boubt that, if he is allowed an efficient establishment, to be paid out of the sale proceeds of the timber, the collections will increase.

7. We agreed that the following establishment is absolutely necessary, in order that the Forests be conserved and at the same time a paying revenue be derived from them, and if the Board approve of the proposed establishment, I beg that it may be submitted for sanction. Perhaps the proposition should have been submitted through the Conservator of Forests, but as Dr. Cleghorn has obtained sick leave and as Mr. Beddome is not, I believe, acquainted with all the localities, and to prevent any further delay which only causes injury to the forests for the want of watchers, I have taken upon myself to apply direct.

			Per mensem.
For the 1st or Karanda-malai Range.	1 Maistry	Rupees	10
	1 Peon	,,	4
The 2nd or North Palani Range ...	1 Maistry...........	,,	10
	2 Peons, at 4 each..	,,	8
The 3rd or Periakulam Range, south face of the Palanis...............	2 Peons, at 4 each.,	,,	8
The 4th or Cambam valley	1 Maistry	,,	10
	3 Peons, at 4 each..	,,	12
For the Forest Superintendent	1 Gumasta	,,	15
	2 Peons, at 5 each,..	,,	10
Stationery, &c		,,	3
		Total Rupees...	90

8. This establishment would be sufficient for all that is required and not the least apprehension need be entertained that it will entail any new expenditure on Government; it will pay itself and also the salary of the Superintendent amounting to Rupees 80 per month and leave a surplus.

9. For the present I have not proposed peons for the top of the Pulnies as the peons at the foot can stop all wood being carried down clandestinely and at present there is no market and the hills; in time it will probably be necessary to have an establishment on them.

10. The jungles in this District especially those about Nattam are exceedingly feverish; the persons proposed to be employed as Maistrys and peons will be inhabitants of villages adjoining or situated within the different jungles, who are better seasoned to the localities and will not be so likely to fall sick, nor have the same inclination to feign sickness to get a way from the jungles as servants brought in from distant places would have.

11. The pay of the peons attached to the Superintendent is placed at 1 Rupee per month higher than the others as they will have to travel about with the Superintendent.

12. The system of licenses without payment alluded to in the Board's Proceedings, No. 3,856, dated 23rd August 1860, has been done away with in the jungles under the Conservancy Department, and they will not be required to be taken out in the jungles not under that Department.

1. Transferred to the Conservator of Forests for disposal.

2. The Board concur in Mr. Levinge's views generally, but they think it essential that the Pulney Hills should be included in the Conservancy. If this is not done the Timber on the top at the Kodi Kanal Settlement will be destroyed by the followers of the residents for firewood, and the little left on the lower Pulneys at Tondigoody and Paruyur will be destroyed as the villagers extend their cultivation. The jungles not mentioned in paragraph 1 of this letter will, the Board presume, be under the Collector's charge, and on this point the Board request the Conservator's views when he replies to their Proceedings, dated 23rd ultimo, No. 3,856.

(A true Copy and Extract.)

J. D. SIM,
Secretary.

No. 2061.

Madura 19th October 1860.

To
The Acting Conservator of Forests.

Sir,

1. From the Proceedings of the Board of Revenue No. 4,235 dated the 18th September 1860 I learn that my proposal for an Establishment for the Forest department in this district has been transferred to you for disposal.

2· I have the honor to request you will inform me your views on the subject as early as possible as I have been obliged to sanction the entertainment of the establishment proposed to be paid out of the sale proceeds of Timber as I had no peons to allow the Forest Superintendent in consequense of the reduction of the Revenue Establishments and unless I had done so it would have been impossible for the department to be worked.

3. The establishment proposed is as such as could be entertained with a hope of any efficiency and in fact you will see that the Board admits as much and are of opinion that the tops of the Pulneys require conservancy, this cannot be done without expense and I agree in the view of the Board and think 2 peons should be* appointed one for the upper and another for the lower range which would add 10 * to the proposed establishment of costing 90 and I think the sales will fully cover the expenses and leave a good Margin of profit.

* As the peons have to live on the Hills their pay is fixed at 5 each.

CIRCULAR.

No. 5, 497.

From W. HUDLESTON Esq., Acting Secretary to the Board of Revenue.
To all Collectors.

Sir,

I am directed by the Board of Revenue to transmit for your information and guidance the following Rules for the preservation of jungles based on those drawn up by the Collector of Coimbatore, and approved by the Conservator of Forests, for adoption in that District. Slight modifications in detail may be found necessary in some Districts, but the radical principle is of general applicability, and the Board trust it will be generally introduced.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) W. HUDLESTON,
Acting Secretary.

Revenue Board Office,
Fort Saint George,
27th November 1860.

(True Copy)

(Signed) W. GRANT,
Acting 1st Assistant,

Rules for the preservation of Jungles.

1. With a view to prevent the unrestricted cutting of wood, and the destruction of jungles thereby, the following rules are laid down, which are to be strictly attended to by all parties concerned.

2. No timber exceeding 3 feet in circumference nor any of the trees noted in paragraph 9 are henceforth to be felled in any of the jungles, the property of Government, except with the permission of the public Officers deputed for such purposes, and in such localities and on such conditions as they may determine.

3. The villagers may cut fuel and firewood for domestic purposes in low jungles and brushwood without taxation as they have done hitherto, but *not for sale.*

4. Charcoal burners may only cut in such places as may be assigned to them, and are not to cut the trees noted in paragraph 9. A seignorage of one *Anna* to be charged per basket (piled *para*).

5. The land to be assigned for cutting fuel, &c., shall, in all practicable cases, be selected near the inhabited villages, so that the clearings may prove an advantage to the residents,

6. The people may likewise cut wood required for the erection of their dwelling houses, but this privilege is restricted to *bona fide* Ryots ; the wood so felled must not be more than three feet in circumference at two feet from the ground, nor such as is likely to become fine timber eventually: in all these cuttings, it is necessary to preserve 29 standard trees per acre.

7. Wood required for agricultural implements shall be allowed to be taken untaxed by all Ryots, and in the same manner bamboos also may be cut for the actual and *bona fide* erection of their houses, *not for sale*.

8. No fruit tree shall be cut down or injured; in like manner all trees likely to become timber, as well as saplings of every kind, should be preserved unhurt.

9. The names of the trees or shrubs which are to be reserved for the value of the wood or of their products, are mentioned below.

1. Trees which are to be reserved for the value of the wood.

Sandal	1	Palmirah	7	Glabrous ferminalia	13
Red saunders	2	Soorool Chukkay	8	Cuddum tree	14
Abony	3	Jack tree	9	Babool tree	15
Satin wood	4	Achamarum	10	Siriss	16
Teak	5	Maruda tree	11	Catechu	17
Black wood	6	Common ferminalia	12		

2 Trees or shrubs which are to be reserved for the value of their products.

Custard apple	1	Eloopay	5	Seecoymarum	8
Guava	2	Cashewnut	6	Punnay tree	9
Soapnut	3	Tattancollay	7	Tamarind tree	10
Capalarung	4				

1 Man 2 maunds	3 Pice
1 Bullock 8 maunds	1 Anna.
1 Cart 40 ,,	5 Annas.

10. On fuel, firewood, and bamboos, cut *for sale*, a fee of 5 Annas for every cart load, 1 Anna for every bullock load, or 3 Pice per man's load will be levied; and the amount so accumulated will form a fund to be laid out in new plantations, or in the preservation and improvement of the existing ones.

11. Palmirahs are likewise to be preserved, and not to be cut without previous permission. When permission is given, a fee of 12 annas is to be paid for every tree to be removed, and the village Officers are to take care that ten kernels are invariably sown for every tree felled.

12. The village Officers are authorized to collect the fee at the rates above set forth, and will remit the collections to the Taluk Treasury like other collections of revenue, with a note of the amount, distinguishing it from other public monies remitted with it: any extra collection. misappropriation of the funds, &c., will render them liable to the penalties provided in Regulation IX of 1822.

13. Cases of evasion of the payment of fee on the part of the people, and of the unauthorised cutting of wood, will be dealt with by the Magistrates according to the existing Regulations for the punishment of Fraud and Trespass.

14. The preservation of the jungles, topes, and fruit and timber trees from destruction, devolves primarily upon the village Officers and community, who will be held responsible for any breach of these rules. Where the forests are extensive, and cannot be conveniently and efficiently overlooked by them, application must be made to the Collector.

15. The village Officers in plain open Taluks will communicate to the Tahsildar the most eligible localities for plantations of Palmirah and other trees, who will report the same forthwith to the Collector for orders. Funds will be placed at the disposal of the village Officers for this purpose, who will be responsible to account for the same.

16. It would be advantageous to plant trees round the boundaries of village cultivation, and on tank and channel banks, as well as in places used for the shelter of cattle. The Soapnut Tamarind, and Palmirah trees are by far the most valuable, and can be grown with profit.

17. The banks of rivers and jungle streams can likewise be planted and watered without difficulty, but care should be taken not to encroach upon the bed of the stream, and thereby diminish the breadth of the waterway.

18. The plantations to be formed should be hedged, and no cattle allowed to graze therein. When the grass grows high enough, people may be allowed to cut the same without injury to the plants on payment of 3 Pice per man's load. The hedge itself when too high may be cut to a moderate height, and the cuttings disposed of by public auction to the highest bidder in the

presence of the Tahsildar, or some other responsible public functionary, the amount derived from these sales to merge in the fund referred to in paragraph 10.

19. All fruits and drugs produced in such plantations will be considered common property, and allowed to be enjoyed by the village community free of taxation; but palmirah leaves cut on Government plantations used for thatching, will have to be paid for at the rate of 1 Rupee per, every 1,000, provided no tax is paid upon the tree by any individual.

20. A yearly report regarding the formation of plantations and their condition should be submitted by the Tahsildar, for the information and orders of the Collector.

21. As the plantations to be formed are intended chiefly for the convenience and comfort of the village communities, and to guard against an eventual scarcity of wood which would be a real hardship to them, it is hoped that they will cordially lend their aid in forwarding this object, which is one of vital importance.

(Signed) W. HUDLESTON,
Acting Secretary.

(True copy).

(Signed) W. GRANT,
Acting 1st Assistant.

No. 5735.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 7th December 1860.
Read again letter from the Collector of Madura, dated 8th September 1860, No. 1,860.

(In Cons. 11th September 1860, No. 4,549.)
Read also the following letters :—
From H. CLEGHORN, Esq., Conservator of Forests, dated 26th September 1860 No. 192 :—

With regard to the application of Mr, Levinge, Collector of Madura* for a Forest Establishment under Mr. Sperschneider, I beg to offer the following remarks :—

*Proceedings of the Board of Revenue, No. 3,856, dated 23rd August 1860.
Do. do, No. 4,235, dated 18th September 1860.

1. I have already stated in my Administration Report, the urgent necessity of an Establishment in Madura, and was waiting for the report of Mr. Sperschneider to press the subject on the attention of Government. I consider that the number and pay of servants named is almost too small, though at first it may be sufficient.

2. When I visited the Pulni Hills last year, and conferred with Mr. T. Clarke, it was our opinion that the tops of the Pulnis especially should be conserved, and all the slopes of the Cumbum valley, at the further extremity of which (near the confines of Travancore,)† we saw a few fine Teak trees, a good deal of Blackwood, and a great abundance of superior jungle trees.

† In the tract marked "High waving mountain forming the source of the Shurly, overrun with dark impenetrable forest"—See Trigonometrical map.

3. The other jungles not alluded to in paragraph 1 of Mr. Levinge's letter should remain under the Collector at present.

4. The Madura District being very similar in physical features to Coimbatore, the "Rules‡ for the preservation of the jungles" should be adopted.

‡ Lately sanctioned by the Board.

5. In conclusion, I would make one addition to Mr. Levinge's proposal, viz., that Mr. Superschneider should be allowed travelling allowance at the rate of 1 Rupee per diem.

6. I shall feel obliged if the Board of Revenue will submit this letter to Government, as it will obviate my troubling them

From Lieutenant R. H. BEDOME, Officiating Conservator of Forests, dated 6th November 1860, No. 240.

I. With reference to the 2nd paragraph of the Proceedings of the Board of Revenue, dated 18th September last, No. 4,235, stating their opinion that the tops of the Pulnis require conservancy, and for which no provision was made by the Collector of Madura, in his letter to the Board recorded in the above Proceedings, I have the honor to state that that Officer has now submitted his recommendation that two Peons should be appointed, one for the upper range at the Kodi Kanal Settlement, and the other on the lower Pulnis at Tondigoody and Purnyur, on a salary of Rupees 5 each. The pay of these Peons is fixed at 1 Rupee per month higher than the others as they have to live on the Hills where provisions, &c., are much dearer.

2. I, therefore, request that you will urge the Board to add this additional sum to the Establishment, formerly proposed, making a total sum of Rupees 100 instead of Rupees 90.

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1. Ordered that the above papers be submitted to Government, with reference to their Proceedings, dated 7th September 1860, No. 1,544, R. D., on the subject of the Conservancy of the Pulni Forests.

In Cons. 11th Septr, 1860, No. 4,545.

2. Mr Levinge has been in communication with Dr. Cleghorn and with Lieutenant Beddome, and tho subject would more properly have been submitted to Government by the Conservancy Department, but illness prevented both of the Officers named from disposing of it, and as requested by them, the Board submit application for the Establishment which in communication with Mr. Levinge they approved.

3. Mr. Sperschneider is now in charge of the Forests in the Madura District, and the Collector has consulted wth him after inspection of the Forests.

4. Five Forest ranges have been selected as worth conserving.

The Establishment proposed are—

			Per mensem.
1st Range.........	1 Maistry	Rs.	10
	1 Peon	„	4
2nd do.	1 Maistry	„	10
	2 Peons at 4 each......	„	8
3rd do.	2 Peons do.	„	8
4th do.	1 Maistry	„	10
	3 Peons at do.	„	12
5. Pulni tops ...	2 Do. at 5 each	„	10
6. For the Supt.	1 Gumastah............	„	15
	2 Peons at 5 each......	„	10
Stationery, &c	....	„	3
	Rupees......		100 per mensem.

5. Dr. Cloghorn further proposes that the Forest Superintendent shall have a travelling allowance of 1 Rupee per diem when moving on duty.

6 The pay of the Superintendent's Peons and of those proposed for the 5th Range is fixed at 1 Rupee per mensem higher than in the other ranges, as in the first instance the men have to travel with the Superintendent, and in the second they have to reside on the Hills where provisions are much dearer than in the plains.

7. The total expense is Rupees 100 per mensem, to which has to be added that of the Superintendent himself amounting to Rupees 80 per mensem, and Mr. Levinge is confident that the return to be obtained by employing this Conservancy Establishment will much more than repay the whole cost even at present.

8. In the two first months of employment without any proper Establishment, the Superintendent collected Rupees 339½, and this will no doubt be rapidly increased when the resources of the Forests are developed,

9. The proposed Establishment being approved by Dr. Cleghorn, and appearing to be no more than is adequate for the purpose in view, the Board recommend that sanction be granted for its entertainment.

(True Copies and Extract.)

W. HUDLESTON.
Acting Secretary.

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TAMIL NADU ARCHIVES
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